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Creation Stories in Dialogue

The Bible, Science, and Folk Traditions

RADBOUD PRESTIGE LECTURES IN NEW TESTAMENT
BY R. ALAN CULPEPPER

Edited by

R. Alan Culpepper
Jan G. van der Watt



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Preface

The second *Radboud Prestige Lectures in New Testament* were held in April 2013 at the Radboud University Nijmegen. They were presented by Prof. Dr. Alan Culpepper of the McAfee School of Theology, Mercer University, Atlanta, USA. His main lecture focused on the relation between evolution, cosmology and Johannine thought. This prestige lecture is printed in this volume.

The aim of the *Radboud Prestige Lectures in New Testament* is to stimulate high level academic discussion, not only in the Netherlands, but also wider afield. In addition, these lectures acknowledge the outstanding work of internationally recognized scholars, in this case Dr. Culpepper. These esteemed scholars who are invited to participate in these lectures are widely regarded as leaders in their respective fields in the New Testament. Through these lectures they share their wealth of knowledge and experience on topics of their own choosing. While the prestige lectures are held at the Radboud University Nijmegen, publication of these lectures with responses by international scholars stimulates further academic discussion on the respective topics. This is done in co-operation with Brill Publishers, who kindly undertake the publication of the lecture series.

The format of this volume is somewhat unique and provocative, not only because of the topic, but also because of the variety of contributors from distinctly different fields of expertise. The current volume came to light in the following way: Dr. Culpepper offered his main prestige lecture on the relation between evolution, cosmology and Johannine thought, in an effort to bring modern thought about the cosmos into discussion with the ancient source texts of Christianity. This provocative lecture, with its wide interdisciplinary scope, was then presented to a variety of scholars from different disciplines (for instance, Biblical studies, studies in African and Asiatic religions, systematic theology, philosophy and other sciences). They obviously approached the issue from a number of different perspectives, thus ensuring a rich texture of insights. The aim was not only to get an overview from some of the important players in the field, but also to provide insights into the current standing of the research on this problem. Two things were asked of the contributors. Firstly, they were asked to respond to Dr. Culpepper's lecture in any way they like, be it briefly or more extensively. Although there is, of course, agreement with much of what Dr. Culpepper maintains, his views are nevertheless discussed critically by some, not hesitating to note some differences among the scholars on crucial points. Other articles just took their point of departure from

Dr. Culpepper's article and then expanded on a related topic. This is the advantage of these contributions—they not only introduce the reader to the finer nuances of the debate, but also explore the wider field. Secondly, the contributors were asked to present their own views. The articles therefore do not only critically engage with Culpepper's views, but also offer alternative views, which obviously broaden the scope of these discussions. Dr. Culpepper then finally offers some concluding remarks in light of the discussions in the volume.

The volume consists of three parts. There is firstly the prestige lecture by Dr. Culpepper itself. The next major part, "Part 1: Creation and Science," then reflects on creation, science, "Big history," in some cases in dialogue with some Biblical texts. This is followed by "Part 2: Creation Stories in Religion" which is divided into two sections, namely, "Section 1: Creation stories—Judaism, Buddhism, and African Religions," and "Section 2: John, creation and the *kosmos*." The purpose of section A is to get a wider scope of creation stories and in the case of the African religion's view it is also shown how these stories impacts on the culture and politics of the people adhering to it. In section 2 the focus shifts to different aspects of the Johannine creation story, which was also discussed by Dr. Culpepper.

The wide scope of the different perspectives the contributors approach the issues with is a strength of this volume. However, theoretical tensions, the impact of differences in presuppositions and points of scientific departure, the role of different world views, and many other issues are tabled in this book, inviting the reader to think along in this difficult but nevertheless intriguing debate to which Dr. Culpepper invited us.

Our thanks and appreciation go especially to Dr. Culpepper for his willingness to read the *Radboud Prestige Lectures in New Testament* in 2013, as well as for taking a leading part in developing this volume and co-editing it. We also want to thank the other contributors for their willingness to participate in this volume. Brill deserves special mention for their willingness to support and print the lecture series.

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Prestige Lecture



“Children of God”: Evolution, Cosmology, and Johannine Thought

R. Alan Culpepper

Modern science and the biblical creation accounts offer two very different stories of the origin and destiny of human life. Advances in the understanding of the origin of the Cosmos, including evolution, the possibility of multiple universes, and the discovery of the Higgs boson, have redefined the meaning of creation and led some to question whether it is still meaningful to speak of a Creator. Robert J. Russell has recast the relationship between science and theology, arguing two basic points: (1) that both involve philosophical assumptions, and (2) that these two major streams of Western intellectual history are closely related.¹ The Greek tradition posited that the universe is rational; the Biblical view of creation *ex nihilo* maintains that the universe is contingent—“it need not exist, and it need not exist the way it does.”² The combination of the two, rationality and contingency, provide the methodological basis of modern science.³ Similarly, Biblical interpretation never proceeds in a vacuum, so the challenge for contemporary interpreters is to understand the Gospel of John’s creation traditions in dialogue with modern science. John presents the Logos as the life force actualizing creation and repeatedly calls for understanding the present from the perspective of the origin and destiny (“whence and whither”) of the Logos incarnate in Jesus.

For many, these two narratives of the origin of the universe are incompatible, forcing a decision between naturalism and theism, science and religion. Most believers choose to hold to both without much understanding of how that may be possible, while others feel compelled to disavow either God or “scientific theories.” The difficulties are compounded when scientists draw theological conclusions based on poor theology, and theologians make ill-informed judgments about science. My effort here, therefore, as someone who is not a scientist, is to seek to understand the latest findings and contribute to a dialogue that respects the place of both science and theology.

1 Robert John Russell, *Cosmology, Evolution, and Resurrection Hope: Theology and Science in Creative Mutual Interaction*, ed. Carl S. Helrich (Kitchener, Ontario: Pandora Press, 2006), 15–16.

2 Ibid., 16.

3 Ibid.

Our plan for this essay has three movements. First, we will summarize what scientists are telling us about the history of the universe. Since I am not a scientist, this is quite clearly an effort at interdisciplinary dialogue. Second, we will reflect on the implications of the scientific understanding of the universe for our understanding of God. And finally, we will turn to the Gospel of John with these perspectives in mind.

1 The History of the Universe at the Beginning of the 21st Century

Scientists now date the beginning of the universe, sometimes called the Big Bang, to 13.8 billion years ago.⁴ In order to establish a frame of reference for this incomprehensible number, we can view the 13.8 billion year cosmic history as a set of 30 volumes, 450 pages each, in which each page represents one million years.⁵ The Big Bang occurred on page one of the first volume, earth history begins in volume 21 (4.54 billion years ago); life in volume 22; the Cambrian explosion in volume 29; dinosaurs in volume 30, page 385; and mind, language, morality, and religion appear in the last fifth or tenth of the last page of the last volume. For 22 volumes there is no life. During this vast expanse of time there was first little more than energy, dark matter, and hydrogen and helium atoms, which then converged in galaxies and stars, great gaseous planets, and then terrestrial planets with carbon, oxygen, and water. Through all this expanse of time, there was a movement toward greater and greater complexity, from subatomic particles through molecules and crystals.

If Creation involved the creation of life, then the process of creation has extended over the vast majority of cosmic time—10 billion years until the first appearance of life. Life does not appear until the last 3.8 billion years, and thereafter it has never again been formed directly. Dramatically, the earth was teeming with life. Both scientists and theologians have concentrated on the origin of life. How did life emerge from inert, inorganic matter? As Mark Ridley notes, though he does not accept the argument, the origin of life is difficult to explain by means of natural selection apart from “co-adaptation” (that is, a process in which “the different parts making up the whole are closely

4 David Christian, “A Single Historical Continuum,” *Clodynamics: The Journal of Theoretical and Mathematical History* 2, 1 (2011): 13, reports 13.7 billion years, but now reports that the date has been revised to 13.8 billion years..

5 For this image and much that follows I am indebted to lectures by and conversations with John F. Haught.

adapted to each other"⁶): "But the chance that molecules, combined at random, would form something as well designed as a bacterium is impossibly small."⁷ Chemical experiments on the production of life forms from a pre-biotic chemistry are tantalizing but as yet inconclusive. The primeval atmosphere was very different from our present atmosphere, which is predominantly composed of nitrogen and oxygen. Before life emerged the atmosphere contained no nitrogen, and consisted primarily of hydrogen and hydrogen compounds: methane, ammonium, and water vapor. In 1954 Harold C. Urey and Stanley L. Miller reproduced this primeval atmosphere in a capsule and subjected it to sparks and intense ultraviolet radiation, simulating thunderstorms and radiation from the sun. To their surprise, the process produced organic compounds, including some of the simpler amino acids. This result was important because proteins, which are common to all life forms, are composed of amino acids.⁸ In 1960, Sidney W. Fox reported that under such conditions the spontaneous production of proteinoids is possible.⁹ Once significant amounts of oxygen become present, as in our current atmosphere, however, no organic compounds are formed. Proteinoids, on the other hand, are commonly formed when oxygen is present.¹⁰

For most of the last 3.8 billion years there were only very simple life forms, but species selection proceeded by means of evolutionary progress, that is "each succeeding group possesses some inherent advantage over the group it replaces," and environmental change.¹¹ The Evolution Library reports that

For most of the nearly 4 billion years that life has existed on Earth, evolution produced little beyond bacteria, plankton, and multi-celled algae. But beginning about 600 million years ago in the Precambrian, the fossil record speaks of more rapid change . . .

Then, between about 570 and 530 million years ago, another burst of diversification occurred, with the eventual appearance of the lineages of almost all animals living today. This stunning and unique evolutionary flowering is termed the "Cambrian explosion," taking the name of the geological age in whose early part it occurred. But it was not as rapid as

6 Mark Ridley, *The Problems of Evolution* (Oxford: Oxford University Press, 1985), 34.

7 Ibid., 35.

8 Hans Schwarz, *Creation* (Grand Rapids: Wm. B. Eerdmans, 2002), 56–57.

9 Ibid., 57.

10 Ibid., 58.

11 Ridley, *The Problems of Evolution*, 141.

an explosion: the changes seem to have happened in a range of about 30 million years, and some stages took 5 to 10 million years.¹²

Although the periods of the emergence of ever more complex life forms can be identified, the record is still open to divergent interpretations. Stephen Jay Gould of Harvard University contends that evolution, driven by chance, could have taken a completely different path which would not have led to a human-like creature, while Simon Conway Morris of Cambridge University contends that “the environment of our planet would have created selection pressures that would likely have produced similar forms of life to those around us—including humans.”¹³

One of the random events occurred around 65 million years ago, when an asteroid impact so changed the environment that it wiped out large dinosaurs, allowing primates to move into their environmental niche.¹⁴

Human evolution is also being reconsidered. It is evident that human evolution has proceeded in the same manner as the evolution of other life forms. The human and ape lines diverged approximately five million years ago, when the early humans began to walk.¹⁵ Genetic dating techniques are now making it possible for us to gain a clearer picture of the course of human evolution, showing that models that trace human evolution along a single track straight from *Homo habilis* or *Homo erectus* 1.8 to 1.3 million years ago straight to *Homo sapiens* (400,000 to 250,000 years ago) were oversimplified. Fossils collected between 2007 and 2009 by a team led by Meave and Louise Leakey confirm that there were at least two contemporary *Homo* species living in East Africa as early as two million years ago.¹⁶ At this time stone chipping to form primitive cutting tools, which probably led to increased meat consumption, appears.

Significantly, the beginnings of speech and hence early language formation appear about the same time, although true speech did not emerge until sometime between 200,000 to 50,000 years ago.¹⁷ Language required both “an

12 “The Cambrian Explosion”: http://www.pbs.org/wgbh/evolution/library/03/4/1_034_02.html.

13 Ibid.

14 See the Big History Project: <https://bighistoryproject.com/>

15 Michael Ruse, *The Philosophy of Human Evolution* (Cambridge: Cambridge University Press, 2012), 58.

16 John Noble Wilford, “Human Evolution Reconsidered,” *Atlanta Journal-Constitution*, August 6, 2012, A3.

17 David Christian (in his Ginn lectures at the McAfee School of Theology in September 2013) defends the earlier date, citing evidence of collective learning, while Ruse, *The Philosophy of Human Evolution*, 61, cites the later date.

anomalously large brain and a uniquely modified vocal tract."¹⁸ Several species may have been at the threshold of language, but humans attained this capacity before the others and consequently quickly became the dominant species. According to Terence Deacon, humans continued patterns of primate communication, including signing, display, ritual, and other forms of communication, while gradually developing the capacity for language and speech, with the earliest language patterns probably being similar to African click languages.¹⁹

Anatomically modern humans evolved from archaic *Homo sapiens* about 200,000 years ago. Genetic analysis of fossils from extinct human lineages, including the Neanderthals, has recently revealed that they once interbred with our ancestors. An article by Charles Choi, with the provocative title, "The Real Question: Who Didn't Have Sex with Neanderthals?" explains:

The only modern humans whose ancestors did not interbreed with Neanderthals are apparently sub-Saharan Africans . . . New findings suggest modern North Africans carry genetic traces from Neanderthals, modern humanity's closest known extinct relatives . . . with recent estimates suggesting that Neanderthal DNA made up 1 percent to 4 percent of modern Eurasian genomes. Although this sex apparently only rarely produced offspring, this mixing was enough to endow some people with the robust immune systems they enjoy today.²⁰

This new genetic evidence has led to various theories:

One possible explanation is that modern humans interbred with Neanderthals mostly after the modern lineage began appearing outside Africa at least 100,000 years ago. Another, more complex scenario is that an African group ancestral to both Neanderthals and certain modern human populations genetically split from other Africans beginning about 230,000 years ago. This group then stayed genetically distinct until it eventually left Africa.²¹

18 Terrence W. Deacon, *The Symbolic Species: The Co-Evolution of Language and the Brain* (New York: W. W. Norton & Company, 1997), 25.

19 Deacon, *The Symbolic Species*, 345, 359.

20 Charles Choi, entitled, "The Real Question: Who Didn't Have Sex with Neanderthals?" http://www.nbcnews.com/id/49642484/ns/technology_and_science-science/.

21 Ibid.

Corroboration of this theory appeared recently through the appearance of a Y chromosome that can be traced to a common ancestor even earlier than previously thought. Referencing an article in *The American Journal of Human Genetics* by Michael F. Hammer, Alan Boyle, science editor for NBC News, reported that “the analysis of a DNA sample that was obtained from an African-American living in South Carolina and submitted to the Genographic Project, a National Geographic effort aimed at mapping human origins and migration” signatures, led the team to conclude that the most recent common ancestor for the entire group of more than 240,000 DNA base pairs on the African-American’s Y chromosome lived about 338,000 years ago. This finding takes us further back than the fossil record goes for anatomically modern humans according to Michael Hammer:

The fossil record speaks to 195,000 years or 200,000 years,” he [Michael Hammer] said. It also goes further back than the previous date for the most recent common ancestor based on Y-chromosome analysis, which is in the range of 142,000 years. The researchers followed up on their discovery by searching through a genetic database for African populations, and turned up 11 men from western Cameroon who had virtually the same genetic signature.²²

There could be two explanations for this ancient Y-chromosome type: Either the genetic heritage of anatomically correct humans really does go back much further than what is reflected in the fossil record—or other populations, such as Neanderthals or the more recently identified Denisovans, who split from the Neanderthals about 100,000 years ago, interbred with modern humans. Anthropologists refer to that pattern of divergence followed by renewed interbreeding as introgression, and such introgression apparently occurred between early humans and Neanderthals.²³ Eventually, however,

22 Michael F. Hammer, “An African American Paternal Lineage Adds an Extremely Ancient Root to the Human Y Chromosome Phylogenetic Tree,” *The American Journal of Human Genetics* 92, 3 (February 28, 2013): 454–59, cited by Alan Boyle, “African-American’s Y chromosome sparks shift in evolutionary timetable”; http://cosmiclog.nbcnews.com/_news/2013/03/05/17199580-african-americans-y-chromosome-sparks-shift-in-evolutionary-timetable?lite=&lite=obnetwork. Cf. Fulvio Cruciani, et al., “A Revised Root for the Human Y Chromosomal Phylogenetic Tree: The Origin of Patrilineal Diversity in Africa,” *American Journal of Human Genetics* 88, 6 (June 10, 2011): 814–18.

23 Ibid. See also Ruse, *The Philosophy of Human Evolution*, 61–62.

around 30,000 to 35,000 years ago, Neanderthals became extinct, probably primarily as a result of diseases to which humans had developed stronger immunities.²⁴

The result is that a part of their genetic heritage survives in modern-day humans. It is also very likely that there are more hidden Y chromosomes around the world. One of the biggest debates in the study of human genetics now has to do with how to match mutation rates with time scales. A second debate concerns the question of whether behavioral changes beginning around 200,000 years ago with our African ancestors were the result of genetic changes or the cause of them. The need for collaboration in hunting led to socialization and language.²⁵ Matt Ridley adds the effects of economics as a driving force in human development:

I am going to argue that the answer lies not in climate, nor genetics, nor in archaeology, nor even entirely in "culture," but in economics. Human beings had started to do something to and with each other that in effect began to build a collective intelligence. They had started, for the very first time, to exchange things between unrelated, unmarried individuals; to share, swap, barter and trade.²⁶

By around 50,000 years ago we begin to see behavioral modernity in human beings: burying the dead, clothing, cave painting, specialized tools, and jewelry. Parenthetically, we may also note that Matt Ridley extends his argument for the importance of bartering and economics in human development by contending that exchange is both the stimulus for and the result of trust—a significant step in the emergence of virtue.²⁷

Astronomers have also been adding to our knowledge of the universe at a rate unparalleled in human history. Extrapolating from a sample, astronomers working with the Kepler satellite calculate that about one in six stars has Earth-size planets:

24 Deacon, *The Symbolic Species*, 371–73.

25 Jared Diamond, *The Third Chimpanzee: The Evolution and Future of the Human Animal* (New York: HarperCollins, 1992), 68.

26 Matt Ridley, *The Rational Optimist: How Prosperity Evolves* (New York: Harper-Collins, 2010), 56.

27 *Ibid.*, 100.

The Kepler satellite, launched in 2009, can detect tiny Earth-like planets because they occasionally pass in front of their mother star, causing a slight dimming of starlight. Kepler has now identified 2,740 potential planets orbiting 2,036 stars, in this way.

This raises the eternal question: is anyone out there? Back in 1600, the former monk Giordano Bruno was burned alive in the streets of Rome for claiming that life can thrive on alien planets. . . . Arthur C. Clarke once said, "Either intelligent life exists in space or it doesn't. Either thought is frightening."²⁸

If life did not emerge from inorganic matter here on earth, it may have been brought here from space. Meteors have been found to contain prebiotic organic compounds from outside our earth.

Nevertheless, we must remember that evolution is a historical sequence that is unique to each particular setting.²⁹ While life, even intelligent life, may exist elsewhere, human beings are the end result of a long process of mutation steps produced by conditions on earth, and the more mutation steps required to produce higher forms of life, "the more unlikely parallel developments become between life on earth and possible life on other planets."³⁰ Following this line of thought to its conclusion, Loren Eiseley offered a sobering judgment on the possibility of human life elsewhere in the universe:

Lights come and go in the night sky. Men troubled at last by the things they build, may toss in their sleep and dream bad dreams, or lie awake while the meteors whisper greenly overhead. But nowhere in all space or on a thousand worlds will there be men to share our loneliness. There may be wisdom; there may be power; somewhere across space great instruments, handled by strange, manipulative organs, may stare vainly at our floating cloud wrack, their owners yearning as we yearn. Nevertheless, in the nature of life and in the principles of evolution we have our answer. Of man elsewhere, and beyond, there will be none forever.³¹

28 Michio Kaku, "Planets, Planets Everywhere: And 17 Billion are the Size of Earth," *Newsweek*, January 11, 2013.

29 See Ian G. Barbour, *Issues in Science and Religion* (Englewood Cliffs, NJ: Prentice-Hall, 1966), 397.

30 Schwarz, *Creation*, 65.

31 Loren Eiseley, *The Immense Journey* (New York: Random House, 1946), 162.

Nor will human beings, or any other life forms, inhabit the earth indefinitely. Astronomy and physics also set a terminus for the earth's ability to sustain life. Within 1.75 to 3.25 billion years, the earth will be drawn out of the solar system's habitable zone into the “hot zone,” and its water will evaporate, rendering it incapable of sustaining life.³² Human life, with all its wonder and mystery, is therefore bounded by both space and time.

It is time for us to distill these findings for our current purposes and move on to theological matters. The findings most challenging for theology are (1) the great expanse of time before the appearance of life; (2) the randomness of the evolutionary process (accident, diversity, natural selection, and time); (3) the role of natural evil in the evolutionary processes—Darwin cited the *ichneumonidae* wasp, that buries its young in living caterpillars as one reason he rejected Christianity;³³ (4) the fact that human evolution has been subject to the same processes at work in the evolution of other life forms; and (5) the growing evidence for habitats compatible with the evolution of life on other planets. These challenges form the agenda for theologians, to which we now turn.

2 Implications for Our Understanding of God

The findings of modern science regarding the cosmos and life have clear and profound implications for our understanding of God and creation. The biblical traditions of creation are framed quite differently, of course. They do not seek to explain how the world was created, but answer instead the basic existential questions of life: (1) Who are we? (2) Who is God? and (3) What is the meaning of life? In contrast to modern scientific findings regarding cosmology and evolution, the biblical traditions affirm the role of a Creator, a divine purpose for human life, and the place of humanity at the apex of the created order, “a little lower than the angels” (Ps 8:5). A “mindful” God may be seen in the creation (Ps 8:4). The Psalmist wonders in awe, “When I look at your heavens, the work of your fingers . . .” (Ps 8:3); and Paul declares that “Ever since the creation of the world his eternal power and divine nature, invisible though they are, have been understood and seen through the things he has made” (Rom 1:20). Both the articulation of what the Bible says about the creation, however, and

32 Wynne Parry, “How Much Longer Can Earth Support Life?” Science on NBC News.com, posted September 18, 2013.

33 Cited by Russell, *Cosmology, Evolution, and Resurrection Hope*, 29.

the implications of modern science for any theistic view of the universe have become battle grounds for theologians.

First, there has been a strong move to dispense with God altogether. If creation and the emergence of life can be explained through evolution, then God is no longer necessary (Richard Dawkins,³⁴ Daniel C. Dennett,³⁵ Jerry A. Coyne,³⁶ and Steven Weinberg³⁷). Michael Ruse questions the notion of biological progress and rejects the proposals of those (such as Robert Russell) who maintain that God works at the quantum level directing the process (see below).³⁸ Everything has a natural explanation, so this view is often called “naturalism.” The introduction to Stephen Hawking’s popular book, *A Brief History of Time*, dramatically claims that

Hawking embarks on a quest to answer Einstein’s famous question about whether God had any choice in creating the universe. Hawking is attempting, as he explicitly states, to understand the mind of God. And this makes all the more unexpected the conclusion of the effort, at least so far: a universe with no edge in space, no beginning or end in time, and nothing for a Creator to do.³⁹

The point is well taken and requires a considered response. Even without Darwin’s theory of evolution, the advances in understanding of the age of the universe and human genetics render a literal interpretation of the biblical account of creation impossible. Some (Phillip Johnson,⁴⁰ William A. Dembski⁴¹

34 *The Blind Watchmaker* (New York: W. W. Norton, 1986), 318: “... slow, gradual, cumulative natural selection is the ultimate explanation of our existence.”

35 Daniel C. Dennett and Alvin Plantinga, *Science and Religion: Are They Compatible?* (New York: Oxford University Press, 2011).

36 *Why Evolution Is True* (New York: Viking, 2009).

37 *Facing Up Science and Its Cultural Adversaries* (Cambridge, MA: Harvard University Press, 2001).

38 Ruse, *The Philosophy of Human Evolution*, 114.

39 Stephen W. Hawking, *A Brief History of Time* (Toronto: Bantam Books, 1988), x.

40 See, e.g., Phillip E. Johnson, *Darwin on Trial* (Washington, D.C.: Regnery Gateway, 1991); idem, *Defeating Darwinism by Opening Minds* (Downers Grove, IL: InterVarsity Press, 1997).

41 William A. Dembski, ed., *Mere Creation: Science, Faith & Intelligent Design* (Downers Grove, IL: InterVarsity Press, 1998); *Intelligent Design: The Bridge between Science and Religion* (Downers Grove, IL: InterVarsity Press, 1999); William A. Dembski and James M. Kushiner, eds., *Signs of Intelligence: Understanding Intelligent Design* (Grand Rapids: Brazos Press, 2001); William A. Dembski and Jay Wesley Richards, eds., *Unapologetic*

and Michael Behe⁴²) have espoused a view commonly known as "intelligent design," which claims that the intricate design of eyes, brains, and other elements of physical life cannot be explained by natural causes but requires an "intelligent designer." Both the naturalists and the intelligent designers draw theological conclusions from science; one argues there is no God, the other that there must be a God. A third approach respects the place of both science and theology while allowing science to inform theology about the processes by which creation has unfolded.

Within this third approach there are various proposals also. In the quest to maintain the proper roles of both science and theology, Robert Russell defines theistic evolution as "the claim . . . that God creates the world *ex nihilo* with certain fundamental laws and natural constants, and God acts everywhere in time and space as continuous creator (*creatio continua*) in, with, and through the processes of nature."⁴³ This reconceptualization blurs the lines between traditional, biblical distinctions between God's (completed) activity in creation and God's ongoing activity within the created order. Everything that *is* is in the process of *becoming*. Ian Barbour consequently set aside the traditional doctrine of creation out of nothing, proposing instead that "Ours is an unfinished universe which is still in the process of appearing. Surely the coming-to-be of life from matter can represent divine creativity as suitably as any postulated primeval production of matter 'out of nothing.'"⁴⁴ Therefore, "it would be desirable to merge the traditional doctrines of creation and providence into a doctrine of *continuing creation*."⁴⁵

Others find no need to choose between *creatio ex nihilo* (defined by Augustine) and *creatio continua* (which can be traced to the Middle Ages), but debate the scope of the meaning of the latter. Theologians distinguish between *providentia ordinaria* (God's continuing governance of the world and direction through the processes of the universe) and *providentia extraordinaria* (special

Apologetics (Downers Grove, IL: InterVarsity Press, 2001), 221–57; William A. Dembski and Jonathan Witt, eds., *Intelligent Design Uncensored* (Downers Grove, IL: IVP Books, 2010).

42 *The Edge of Evolution: The Search for the Limits of Darwinism* (New York: Free Press, 2007); with William A. Dembski and Stephen C. Meyer, eds., *Science and Evidence for Design in the Universe* (San Francisco: Ignatius Press, 2000).

43 Russell, *Cosmology, Evolution, and Resurrection Hope*, 28.

44 Barbour, *Issues in Science and Religion*, 385. See also the summary of the definition of *creatio ex nihilo* in Christian theology by Maurice Wiles, *God's Action in the World: The Bampton Lectures for 1986* (London: SCM Press, 1986), 15–17. For the development of process theism, and A. N. Whitehead's role in this development, see Lewis S. Ford, *The Lure of God: A Biblical Background for Process Theism* (Philadelphia: Fortress Press, 1978).

45 Barbour, *Issues in Science and Religion*, 417.

providence, God's direct, even miraculous, intervention in natural processes).⁴⁶ Mark Worthing, for example, offers a definition of continuing creation that includes both ordinary and special providence when he defines continuing creation as "divine sustenance and conservation (including change), providence, and the possibility of divine intervention/activity in the physical universe."⁴⁷ Such a doctrine immediately raises the question of how we are to understand God's divine activity in the world.

Proposals range from those that tend toward Deism to those that envision divine activity guiding both natural processes and supernatural events. Maurice, F. Wiles, an exponent of the former, regards "the whole continuing creation of the world as God's one act,"⁴⁸ thereby effectively dismissing the possibility of particular, providential acts. The nature of this creation "is incompatible with the assertion of further particular divinely initiated acts within the developing history of the world."⁴⁹ Similarly, while emphasizing the open-endedness of the process of creation, Arthur Peacocke maintains that "all events participate in one continuous process that is the expression of the divine purpose which includes ourselves."⁵⁰ The more one invests in God's establishment of the processes of creation and nature, however, the more one moves toward Deism with its proverbial, detached Watch Maker. Using the analogy of mixing the ingredients and baking a cake, Ted Peters argues that: "All of God's current works are parts of a single comprehensive act of creating the world."⁵¹ Just as the cake does not exist until after it has been baked, so the creation, and humanity, are in process toward what it will be in the future. God, then, acts in a non-interventionist manner within the natural processes of the world.⁵² John V. Taylor contended that "if the hand of God is to be recognized in this continuous creation, it must be found not in isolated intrusions, not in any gaps, but in the very process itself."⁵³ John Polkinghorne agrees but insists that "the God of both being and becoming" is both the sustainer of the whole

46 Mark William Worthing, *God, Creation, and Contemporary Physics* (Minneapolis: Fortress Press, 1996), 130–31.

47 Ibid., 115.

48 Wiles, *God's Action in the World*, 93.

49 Ibid.

50 A. R. Peacocke, *Creation and the World of Science: The Bampton Lectures, 1978* (Oxford: Clarendon Press, 1979), 353.

51 Ted Peters, *Anticipating Omega: Science, Faith, and Our Ultimate Future* (Göttingen: Vandenhoeck & Ruprecht, 2006), 15.

52 Ibid., 22. See also Russell, *Cosmology, Evolution, and Resurrection Hope*.

53 John V. Taylor, *The Go-Between God: The Holy Spirit and the Christian Mission* (Philadelphia: Fortress Press, 1972), 28.

of creation—the God of “‘gaps’ and regularities alike.”⁵⁴ Specifically, God works not just through the indeterminacies of quantum phenomena but through the flexibility of creation’s processes.⁵⁵

Whereas the conversation to this point has been between science and theology, Gordon Kaufman has asked what the implications of this scientific world view are for theology. Throughout Jewish and Christian history persons of faith have interpreted God in light of changing understandings of the world and the place of humanity within it. Can we still talk meaningfully about God in a way that is compatible with the evolutionary history of the universe? What implications, if any, “can be drawn from the fact that the universe is the sort of reality that gives rise to evolutionary processes of life”?⁵⁶ Kaufman’s answer is to point to the mystery of what he calls “serendipitous creativity.”⁵⁷ “God” has always been our way of speaking of the mystery of existence. Hence, “if we wish to continue using the word ‘God,’ we would do well to understand it as basically referring to the ongoing creativity manifest in the cosmos.”⁵⁸ Accordingly, it is no longer possible to think of God in traditional anthropomorphic terms as a personal creator-agent. There is no “heavenly Father” and no special revelation.⁵⁹ Love “emerged with human creatures who could respond to it.”⁶⁰ Kaufman suggestively posits three expressions of creativity: creativity₁, which designates the Big Bang, the initial coming into being of the universe; creativity₂, the ongoing coming into being of trajectories of increasingly complex realities; and creativity₃, human symbolic creativity—how we humans create ideas.⁶¹ Kaufman concedes that we may never be able to understand “the mystery of how greater and more complex things can come out of simpler and lesser things,” but suggests that the instability of conditions that are out of balance, the effect of tipping points, and self-organizing systems give us a way to think about creativity.⁶²

In his most recent book Kaufman takes up the question of the implications of understanding God as “the mystery of creativity manifest throughout the

54 John Polkinghorne, *Science and Providence: God’s Interaction with the World* (London: SPCK, 1989), 31, 34.

55 Ibid., 44; see Polkinghorne, *Science and Creation*, 27.

56 Gordon D. Kaufman, *In the Face of Mystery: A Constructive Theology* (Cambridge, MA: Harvard University Press, 1993), 264.

57 Ibid., 279.

58 Gordon D. Kaufman, *In the Beginning . . . Creativity* (Minneapolis: Fortress Press, 2004), 42.

59 Ibid., 68.

60 Ibid., 64.

61 Ibid., 76.

62 Ibid., 92.

universe” for our understanding of Jesus.⁶³ If “God” is not a personal creator-agent, it is meaningless to speak of Jesus as “Son of God.” The idea of incarnation requires a creator-agent. Instead, following from his focus on creativity, Kaufman distinguishes two trajectories of extraordinary creativity that followed from Jesus’ life: Jesus-trajectory₁, the process (which drew on a dualistic understanding of heaven and earth) by which Jesus came to be understood as the incarnate Son of God; and Jesus-trajectory₂, the creativity of the Jesus movement through the centuries. Jesus significantly reshaped the understanding of God for his followers, and Kaufman finds that “this creation of a new image/concept of God was carried furthest in the Johannine writings” with the claim that “Jesus was not just the decisive *revelation* of God; he was in fact *divine*.”⁶⁴ First John claims that God is love, which Kaufman notes is an activity, not a person, and hence a step toward his interpretation of God as creativity.⁶⁵ Through the creativity of Jesus and the early community, therefore, God (serendipitous creativity) created *agape*-love as “the central value and norm for human life.”⁶⁶ While for Kaufman much that is foundational for Christian theology must be abandoned or radically reinterpreted, it is still possible to speak of the role of mystery in the creation of life and the normativity of Jesus’ life and teachings—a normativity that we choose, however, not one revealed by a personal God revealing the character of divinity in history.

John F. Haught commends layered explanations (both natural and theological) and what he speaks of as the design, diversity, descent, and drama of life.⁶⁷ Rather than “intelligent design” Haught prefers to think in terms of evolutionary history (natural selection, accident, and deep time) as drama. Life evolved slowly, from single cell life, complex organisms, sentience, consciousness, hope, and love. Moral beings evolved from amoral animal life. In this sense there is discernible progress in evolutionary history. There is also something anticipatory about every stage of evolutionary history. The process is not predetermined, however. Rather than locating God conceptually “in the beginning,” as both popular Creationism and Intelligent Design do, Russell, Peters, and Haught follow Teilhard de Chardin in placing God in the future, drawing the process forward. Hence,

63 Gordon D. Kaufman, *Jesus and Creativity* (Minneapolis: Fortress Press, 2006), 15.

64 *Ibid.*, 43.

65 *Ibid.*, 45, 48.

66 *Ibid.*, 48.

67 John F. Haught, *Making Sense of Evolution: Darwin, God, and the Drama of Life* (Louisville: Westminster John Knox, 2010), 53.

Without diminishing or denying the results of scientific research, a theology of evolution locates the whole drama of life and the entire cosmic process within a vision of a universe still open to becoming more deeply infused with being, goodness, and beauty as it is drawn toward its Absolute Future.⁶⁸

Teilhard de Chardin (1881–1955) based his view on the observation that evolution has a direction,⁶⁹ a gradual increase in organized complexity: pre-atomic matter, atoms, molecules, cells, organisms, vertebrates, primates, humans, or to use his terms cosmogenesis (the origin of the universe), geogenesis (the origin of the earth), biogenesis (the origin of life), psychogenesis (the origin of humanity), and ultimately noogenesis (the emergence of thought or the reflective self). In a sense everything is present in potential from the beginning, and there is a pull toward ever greater complexity. David Christian, though he does not share Teilhard's theism, agrees: "Different levels of complexity appear to yield new 'emergent properties,' properties that can not be deduced from understanding lower levels in the hierarchy."⁷⁰ The increase in complexity has been accompanied by a corresponding increase in consciousness. Economics, politics, education, technology are all part of the evolution of the sphere of mind.

Such a view has clear ethical implications. First, human life is historically and genetically bound to animal life and ultimately to the whole creation. Consequently, as human beings we have a heightened responsibility for care of the earth and care and compassion for sentient animals with whom we share the earth.⁷¹

Second, becoming is continuous, open-ended, and therefore ethically significant. Evolution means that our lives are invested with ethical significance. How we live makes a difference in the history of human evolution. David Christian has observed that there are three possible stages in the development of intelligent life. In the first stage, which has occupied most of human history, we had little capacity to affect the future of the planet or human life. The second stage is marked on the one hand by the development of the technology capable of destroying the earth and human life (through war, environmental pollution, or genocide) and on the other hand by the possibility that we might

68 Ibid., 52; cf. Peters, *Anticipating Omega*, 12–14.

69 Pierre Teilhard de Chardin, *The Phenomenon of Man* (New York: Harper & Row, 1959), 146.

70 David Christian, "A Single Historical Continuum," *Clodynamics* 2,1 (2011): 16.

71 See Richard Bauckham, *Living with Other Creatures: Green Exegesis and Theology* (Waco, Tex.: Baylor University Press, 2011).

do so. The third stage, still in our future, will be marked by moral and political development that will make it possible for us to maintain a sustainable relationship with our planet.⁷² Religion may have a decisive role in determining whether we reach the third stage or not, because religion has a potent capacity for both good and evil, peace and violence.⁷³ If there is intelligent life on other planets, they may be at any one of these three stages.

Alan L. Mittleman concludes his book, *A Short History of Jewish Ethics*, with the following apologetic for the continuing importance of Jewish ethics:

If the prospect of environmental disaster comes at least in part because of the way we have chosen to live in carbon-hungry societies, perfectionism might be exactly what we need. Taming our appetites, without killing our economies, will require self-restraint and reallocation of resources to worthy, and more sustainable, ends. The possible contribution of the Jewish moral tradition should not be discounted.⁷⁴

A further implication of the history of human development within the broad expanse of creation is that there is no reason to think that the evolutionary process has stopped just because human beings have arrived on the scene. Matt Ridley reminds us that “most species last only about ten million years and most leave no descendant species behind: we’ve done five million years and spawned no daughter species so far.”⁷⁵ Teilhard de Chardin identifies the power of love as generative for the next stage of what he calls the noosphere. Matter produced life, which led to the development of mind and reflective thought. Even in 1940 Teilhard de Chardin observed that humanity was in a period of rapid change, leaving behind decades of economy tied to agriculture and moving into a new era he could not name, one that we now see evolving around us quickly in modern technology. The next phase of human evolution, however, is tied to the emergence of community that will promote values such as character, creativity, freedom, beauty, and love. John Hick calls ours a “divinely created sphere of soul-making,” although he

⁷² David Christian, “Humanoid Histories,” <http://www.metanexus.net/essay/humanoid-histories>.

⁷³ See Charles A. Kimball, *When Religion Becomes Evil: Five Warning Signs*, rev. ed. (New York: HarperCollins, 2008).

⁷⁴ Alan L. Mittleman, *A Short History of Jewish Ethics* (Chichester: Wiley-Blackwell, 2012), 201.

⁷⁵ Matt Ridley, *Genome: The Autobiography of a Species in 23 Chapters* (New York: HarperCollins, 2000), 195.

concedes that the soul making process fails "at least as often as it succeeds."⁷⁶ The notion of soul making is not new, however. Hick traced it to Irenaeus,⁷⁷ but it emerged in Jewish tradition also. The *Migration of Abraham* was for Philo a metaphor for progress toward virtue and the experience of the divine, and Maimonides (1135–1204) wrote the following prescient thoughts in the twelfth century:

As a decent man, one must cultivate the virtues and avoid the sins. In so doing, he will perfect the specifically human which resides in him and will be genuinely different from the animals. When one becomes fully human, he acquires the nature of the perfect human being; there is no external power to deny his soul eternal life.⁷⁸

At any point in history, one could not have seen what lay ahead (energy, matter, water, life, amphibians, reptiles, mammals, humans). So, it is difficult to see what actualization of the *imago dei* may lie beyond the human period of evolution. Teilhard de Chardin posited that God is drawing the world toward unity from "up ahead." God is becoming increasingly incarnate in the world. God is the center of convergence. Christianity unites the themes of hope and vitality in an eschatological panvitalism. In John 17, Jesus prays for the ultimate convergence: "that they may be one, as we are one, I in them and you in me, that they may become completely one" (17:23). Resurrection is an essentially eschatological concept, and we are being drawn forward into the resurrection. Just as life's origin cannot be separated from the origin of the cosmos, so our destiny is inseparable from the cosmos.

It is time that we move on to the final section of this essay and read John in the light of this contemporary discussion about evolution and theology.

3 Reading of John in the 21st Century

Our purpose in this last section is not to defend modern science from the Gospel of John, nor to contend that John anticipated the evolutionary understanding of the world. On the contrary, it is simply to point out ways in which

⁷⁶ John Hick, *Evil and the God of Love*, 2nd ed. (London: Macmillan/Palgrave Press, 1977; rpt. 2010), 336.

⁷⁷ *Ibid.*, 211–15.

⁷⁸ Maimonides, *Introduction to Helek: Sanhedrin, Chapter 10*, 416.

John can be read in light of the modern science and ways in which that understanding places aspects of John in a new context.

We may begin with the observation that the Gospel of John is the only Gospel to connect Jesus with the creation of the world (through the Logos).⁷⁹ In a rudimentary sense the basis for the contemporary scientific and theological views we have summarized above is present in the prologue of John—creation, life, light, and becoming children of God (beings in whom the *imago dei* is evident). The Logos (in a way like the Stoic notion as well as the Jewish) is the life force actualizing creation and working through its evolution. Yet, whereas Genesis names humanity as the end and culmination of creation, the prologue to John leaves the creative work of the Logos open toward the future.

3.1 *The Logos and Wisdom; Creation and Ethical Instruction*

The opening words of the prologue, “In the beginning was the Word,” suggest that what follows is scripture or at a minimum an extension of the Hebrew scriptures.⁸⁰ The influence of the beginning of Genesis on the literary shape of the gospels can also be seen in the opening words of Matthew: “An account of the genealogy [Greek *geneleos*] of Jesus the Messiah, the son of David, the son of Abraham.” Matthew then follows with the genealogy of Jesus, tying the lineage of Joseph to the history of Israel, the scriptures, and Abraham and David in particular. The account of Jesus’ birth in Matthew makes clear that it recapitulates events in the life of Moses and Israel’s exodus from Egypt. We are on secure ground, therefore, when we probe for evidence of how the prologue stands in the tradition of Jewish interpretation of the creation in Genesis and its influence on early Jewish thought.

Well before the first century, Jewish sages began to explore the theological and ethical significance of creation. They connected creation with wisdom, ethical instruction, and ultimately the Law. In Proverbs 8 Wisdom is personified and speaks in the first person, describing how she was the first of God’s acts before anything else was created, and then how she was beside the Lord “like a master worker” (Prov 8:30).

79 See also Col 1:15–20.

80 Both D. Moody Smith and Francis Moloney have argued that the Gospel of John was written as scripture, but surprisingly neither of them makes much of the way John 1:1 echoes Gen 1:1. Cf. D. Moody Smith, “When Did the Gospels Become Scripture?” *Journal of Biblical Literature* 119 (2000): 3–20; and Francis J. Moloney, *The Gospel of John: Text and Context* (BibInt 72; Leiden: E. J. Brill, 2005), 333–47.

The Lord created me at the beginning of his work,
 the first of his acts of long ago.
 Ages ago I was set up,
 at the first, before the beginning of the earth.
 When there were no depths I was brought forth,
 when there were no springs abounding with water.
 Before the mountains had been shaped,
 before the hills, I was brought forth—
 when he had not yet made earth and fields,
 or the world's first bits of soil.

Then I was beside him, like a master worker;
 And I was daily his delight,
 Rejoicing before him always,
 Rejoicing in his inhabited world
 And delighting in the human race. (Prov 8:22–26, 30–31)

Immediately, Lady Wisdom goes on to say, “Happy are those who keep my ways. Hear instruction and be wise, and do not neglect it” (Prov 8:32–33). Wisdom connects creation with ethical instruction: both derive from Wisdom.

Similarly, Job 28:25–28 connects creation and wisdom teaching:

When he gave to the wind its weight,
 And apportioned out the waters by measure;
 When he made a decree for the rain,
 And a way for the thunderbolt;
 Then he saw it and declared it;
 He established it and searched it out.
 And he said to humankind,
 “Truly, the fear of the Lord, that is wisdom;
 And to depart from evil is understanding.”

Sirach, the wisdom teacher of the second century BCE, opens with a line that anticipates the prologue, “all wisdom comes from Yahweh, and has been with him from all eternity” (1:1).⁸¹ Sirach then declares, “Whoever loves her

81 John Ashton, “The Transformation of Wisdom: A Study of the Prologue of John's Gospel,” *NTS* 32 (1986): 166.

[Wisdom] loves life, and those who seek from early morning are filled with joy" (Sir 4:12). Sirach 24 describes how Wisdom came forth from the mouth of the Most High and covered the earth (24:3): "Before the ages, in the beginning, he created me, and for all the ages I shall not cease to be" (24:9). Then the Creator assigned Wisdom to dwell in Israel, in the holy tent, in Zion, "and in Jerusalem was my domain" (24:11). And Wisdom is to be found in "the law that Moses commanded us" (24:23). Again, Wisdom plays a central role in both creation and in moral instruction. Shane Berg argues that "Ben Sira insists that God's law is part of the orderly creation of the world and is fully knowable by humans,"⁸² citing Sir 16:24–25 and 15:14.

Listen to me and grasp my insight, and place your heart upon my words;
I will pour out my spirit by measure and I will declare my knowledge
carefully. (16:24–25)

God created the human in the beginning, and placed him in the power of
his inclination. (15:14)

Ben Sirach's creative retelling of the Genesis account is further evidence that, as Berg observes, "the Genesis creation accounts had become contested ground in Jewish wisdom circles in the Hellenistic age."⁸³

In the first century BCE the Wisdom of Solomon traced the course of Wisdom "from the beginning of creation" (Wisd 6:22), exalting her further. Solomon claims that "wisdom, the fashioner of all things, taught me" (7:22). She is "a breath of the power of God, and a pure emanation of the glory of the Almighty" (7:25), "a spotless mirror of the working of God, and an image of his goodness" (7:26). Solomon continues:

Although she is but one, she can do all things,
and while remaining in herself, she renews all things;
in every generation she passes into holy souls
and makes them friends of God, and prophets;
for God loves nothing so much as the person who lives with wisdom.
(Wisd 7:27–28)

82 Shane Berg, "Ben Sira, the Genesis Creation Accounts, and the Knowledge of God's Will," *JBL* 132, 1 (2013): 157.

83 Ibid.

He asks, "Who more than she is fashioner of what exists?" (8:6), and confesses, "in kinship with wisdom there is immortality" (8:17). Solomon then prays to God to send him wisdom, addressing God, "O God of my ancestors and Lord of mercy, who made all things by your word, and by your wisdom have formed humankind" (9:1; cf. 9:9) and petitioning "that I may learn what is pleasing to you" (9:10). Throughout these excerpts we see how Wisdom is understood both as God's creative agent and as the supreme teacher of God's ways. We may also note in passing that there is no mention of the creation of wisdom in Wisdom of Solomon 9:1–2. Martin Scott comments that "the author of John's Prologue wants to leave the reader in no doubt that the tradition of Wis. 9:1–2 is being followed, where no mention of Sophia's own creation comes into play."⁸⁴

Philo wrote more on Genesis than anyone else in antiquity wrote on any one book. In *On the Creation*, he argues that God conceived first the plan and then the actual creation, according to the plan:

We must suppose that, when He was minded to found the one great city, He conceived beforehand the models of its parts, and that out of these He constituted and brought to completion a world discernible only by the mind, and then, with that for a pattern, the world which our senses can perceive.

... the world discerned only by the intellect is nothing else than the Word of God when He was already engaged in the act of creation. ... and if the whole creation, this entire world perceived by our senses (seeing that it is greater than any human image) is a copy of the Divine image, it is manifest that the archetypal seal also, which we aver to be the world described [or "discerned"] by the mind, would be the very Word [*logos*] of God.⁸⁵

By the first century, wisdom speculation had merged with the rising importance of the Torah, so we begin to hear that the Decalogue, the revelation at Sinai, or the Torah pre-existed the creation. Baruch 4:1, for example, connects Wisdom with the law: "She is the book of the commandments of God, the law that endures forever" (Bar 4:1). Pseudo-Philo reports that the Lord "brought

84 Martin Scott, *Sophia and the Johannine Jesus* (Sheffield: Sheffield Academic Press, 1997): 98.

85 Philo, *On the Creation* 19–20, 24–25 (LCL 1:17–19, 21). Although Ashton does not cite this passage, it supports his contention that "*logos* in the Prologue is more than utterance (*logos prophorikos*) and more than thought (*logos endiathetos*): it is the plan of God ... a meaning closely related to, if not identical with Col 1.25. ...": John Ashton, "The Transformation of Wisdom: A Study of the Prologue of John's Gospel," *NTS* 32 (1986): 172–73.

them to Mount Sinai and brought forth for them the foundation of understanding that he had prepared from the creation of the world" (32:7).⁸⁶ The Law, the Lord's statutes and judgments, is "an eternal light" for Jacob because the Lord thought of him "in the days of old" (9:8). Similarly, Mishnah *Aboth* 3.15 describes the Law as "the precious instrument by which the world was created."⁸⁷

The result of our survey is a reminder that Second Temple Judaism connected the creation traditions with Wisdom, the pursuit of life, ethical instruction, and ultimately the Law. In a remarkable way, these texts constitute a distinctive expression of the intuition that the Creative Force evident in the creation can teach us something about how to live. When John introduces Jesus as the incarnation of the Logos, and opens with a reference to the role of the Logos in creation, it evokes this deep and rich tradition. Further, it establishes that the work of the Logos in creation is revelatory. In this regard it is consistent with affirmations of the revelatory character of the creation elsewhere in the scriptures (Ps 8; Rom 1:20).

3.2 "Life" in John 1:4

The key value established in the first five verses of the prologue is "life." Life has its origin in the Word, an affirmation that may imply something about God's purpose for creation as well as the ultimate aim of God's purposes. John 1:3–4 declares, "All things came into being through him, and without him not one thing came into being. What has come into being in him was life, and the life was the light of men" (NRSV). These verses are replete with problems. Where does verse 3 end and verse 4 begin? How does one read and punctuate the statement, "What has come into being in him was life?" Is it "in him" or "in it"? And what is the meaning of the reference to life? We cannot rehearse all the arguments and interpretations here. For my argument, however, the question of the meaning of the first reference to life in verse 4 is important. Does it mean life of the created order, or the life conveyed to those who received the Logos incarnate in Jesus? The point has often been debated. Raymond Brown, for example, claims, "Of course, in its first chapter Genesis is speaking of natural life while the prologue is speaking of eternal life,"⁸⁸ but Brown also recognizes that "in vs. 4 the Prologue is still speaking in the context of the creation

86 James H. Charlesworth, ed., *The Old Testament Pseudepigrapha* (Garden City, NY: Doubleday, 1983), 2:346.

87 Herbert Danby, trans., *The Mishnah* (London: Oxford University Press, 1933), 452.

88 Raymond E. Brown, *The Gospel according to John* (Doubleday: New York, 1970), 26.

narrative of Genesis,"⁸⁹ which describes the tree of life. He therefore concludes, "That which had especially come to be in God's creative Word was the gift of eternal life."⁹⁰ Ed Miller identified five interpretations of *zōē* (life) in verse 4a and, like Brown, favored the incarnational.⁹¹

John often uses words with deliberate ambiguity and plays on their multiple meanings. So here John asserts that the Logos, like Wisdom, was the agent of creation. Wisdom brought into being living things, and then gave to those who would receive it the revelation that leads to a higher way of life. John moves step by step in these verses: (1) a positive statement: "all things came into being through him" (which parenthetically would include the affirmation that the Logos gave life to all living things); (2) a negative restatement: "and without him not one thing came into being"; and then (3) a restatement with further specification: "what-came-into-being-in-him was life." John often moves from the literal to the spiritual and the literal to the ironic, challenging readers to grasp the relationship between the two. In these opening verses John declares the role of the Logos in creation and begins to lead the reader to the characteristic sense of life in this Gospel—that of the life bestowed by the Word incarnate in Jesus. In the first occurrence of the term in verse 4, however, the sense is ambiguous, allowing the reader to start from the context of the creation of life while moving the reader to the full sense of life in this Gospel.⁹² John is primarily interested in the nature of eternal life, and will even affirm (in 17:3) that it is already present and available here and now, but this first reference does not contain all the meaning John will eventually load into this term.

The next line (v. 5) moves from an anarthrous reference to life to a specific reference ("The life"), which hints that it is already looking toward the life of the Word that became incarnate in Jesus. "The light" denotes the revelation that enlightens the created order and gives humanity the knowledge of God that in turn grants to life its higher quality. This light shines in "the darkness" that characterizes all who live in ignorance and therefore in opposition to "the light." The opposition between light and darkness sets up the oppositional dualities of the Fourth Gospel, but it is not an ontological, metaphysical,

89 Ibid., 27.

90 Ibid.

91 Ed. L. Miller, *Salvation-History in the Prologue of John: The Significance of John 1:3/4* (NovTSupp 60; Leiden: E. J. Brill, 1989), 51.

92 See G. H. C. MacGregor, *The Gospel of John* (New York: Harper and Brothers, [1928]), 6; M.-E. Boismard, *Le Prologue de Saint Jean* (Paris: Les Editions du Cerf, 1953), 31–32; I. de la Potterie, "De Interpunctione et Interpretatione Versum Joh. 1:3–4," *VD* 33 (1955): 206–07; Barnabas Lindars, *The Gospel of John*, New Century Bible (London: Oliphants, 1972), 77.

or eternal dualism. The opposition is between persons who are empowered or transformed by “the light” and those that are not. Those who are not of “the light” oppose it, but shall not overcome it.⁹³ These observations are important because they establish the divine identity of Jesus, the place of the cosmos as the creation of the Logos, the ultimate value of life, and especially the potential of human life lived in relation to its creator through the revelation disclosed through Jesus.

In light of the foregoing discussion, the affirmation in John 1:4, “in Him was life,” takes on deeper meaning. The prologue insists that God is other than the creation, but allows us to see God’s direction of the creative process. Creation is unfinished and ongoing. On this point I agree with Barnabas Lindars, who commented:

So also the characteristics of man as the apex of Creation are ascribed to the Word: life, which man shares with the animal kingdom, but which in its fullest sense is shared only with God himself; and light, which refers to the illumination of man’s mind and conscience through his special capacity to receive divine revelation. This means that the activity of the Word does not stop at the initial act of Creation, but continues through time.⁹⁴

The signs that Jesus does in the Gospel of John are based on just such an open view of creation. Jesus comes as the creative Logos, and the works he does confirm his identity. As the Logos incarnate, he turns water to wine at the wedding at Cana, or as an anonymous medieval epigrapher wrote, “the water recognized its creator and blushed.”⁹⁵ Just as evolution is extravagant in its diversity and its forms of life, so Jesus is extravagant, creating a wonderful abundance of wine, more bread than a multitude could eat, and a catch of 153 large fish. Jesus walks on the Sea of Galilee, restores life to the son of the royal official, and heals the man at the Pool of Bethesda. He gives sight to a man born blind, something never heard of before, and then raises Lazarus. He has the power to lay down his life and to take it up again (10:18).

93 See further my essay, “The Problem of Evil in the Gospel of John” (Waco: Baylor University Press, 2014), 59–72.

94 Lindars, *The Gospel of John*, 77.

95 “The conscious water saw its God, and blushed,” Richard Crashaw, *Epigrammata Sacra, Aquae in Vinum Versae* in *Oxford Dictionary of Quotations* (3rd ed.; Oxford: Oxford University Press, 1980), 169.

3.3 *God's Continuing Work in the Creation—John 5:17*

We may also note that the Gospel enters into a debate that continued among the rabbis regarding God's work and God's rest on the Sabbath. According to Gen 2:1–2, God completed His work and rested on the seventh day.

Thus the heavens and the earth were finished, and all their multitude. And on the seventh day God finished the work that he had done, and he rested on the seventh day from all the work he had done.

In John 5:17 Jesus defends his healing on the Sabbath by saying, "My father is still working, and I also am working." C. H. Dodd wrote a classic exposition of the debate in John 5 regarding what is permissible on the Sabbath.⁹⁶ When four rabbis were challenged as to whether God kept His own law, their response assumed that God continued to work but that God's work on the Sabbath did not violate the prescriptions for the Sabbath (*Exod. Rabb.* 30.9). Philo agreed: Divine rest does not mean abstention from good deeds: "The cause of all things is by its nature active; it never ceases to work all that is best and most beautiful" (*De Cher.* 87). In fact, Philo claims that it is impossible that God should rest because "God never ceases creating, but as it is the property of fire to burn and of snow to be cold, so it is the property of God to create . . . for He causes to rest that which, though actually not in operation, is apparently making, but He Himself never ceases making" (*Leg. All.* 1.5–6). In other words, God caused inferior creative agencies to cease, while God continued to create. Elsewhere Philo modifies this claim, saying that God rests from creating mortal things (*Leg. All.* 1.16). Later rabbis followed the same line in claiming that God ceased from some things but not others. God rested from the work of creation but not from "the moral government of the universe"—*providentia ordinaria* (see above).⁹⁷ The two activities that Jesus claims the Father has given to the son are giving life and judging (5:21–22), and both of these activities belong the continuous work of God. Hear Dodd's comment:

John similarly speaks of two divine activities, *zōopoiein* and *krinein*. The former is clearly a function of the creative power of God, and the latter of the kingly power. . . . even on the Sabbath, as always, God gives life and

⁹⁶ C. H. Dodd, *Interpretation of the Fourth Gospel* (Cambridge: Cambridge University Press, 1953), 320–23. See also Elizabeth Harris, *Prologue and Gospel: The Theology of the Fourth Evangelist*, JSNT Supplement Series 107 (Sheffield: Sheffield Academic Press, 1994), 162.

⁹⁷ *Ibid.*, 322.

judges. The words which follow, *kagō ergazomai*, imply that the life-giving work which Jesus has performed on the Sabbath is an instance of the divine activity of *zōopoiēsis*, and as such is exempt from the Sabbath restrictions.⁹⁸

For our purposes, we may simply note that John signals that God's creative work is ongoing (*creatio continua*) and not limited to the originating act of creation.

3.4 *John's Dynamic Anthropology—Becoming "Children of God"*

Finally, John clearly maintains that human life is dynamic. The opening verses of the prologue speak of what came to be in him. It also affirms that human beings are capable of change, of "becoming": "But to all who received him, who believed in his name, he gave power to *become* children of God" (1:12). Behind all of the dialogues in John are two assumptions: (1) that human beings can change, and (2) that attaining their full potential as persons depends on their perceiving that Jesus is the Son of God, sent from above. Rising to levels of perception of revelation and responses of faith define them as new beings. Through the agency of the Spirit they can be born from above and attain a new status and quality of life, which John identifies as their becoming "children of God" (1:12; 11:52). The metaphor is developed as the Gospel progresses. Nicodemus struggles to understand the meaning of being born "again" or "from above" (3:1–12). This life from above is sustained by living water and "the bread of life," so Jesus promises the woman at the well in Samaria "living water" (4:10, "a spring of water gushing up to eternal life" (4:14). Similarly, Jesus offers the crowd in Galilee "food that endures for eternal life" (6:27), "the bread that comes down from heaven" (6:50). Jesus will draw all people to himself (12:32), and as he dies he figuratively constitutes a new family, mother and son, at the cross (19:26–27). In this connection, it may be significant that after his resurrection Jesus sends Mary Magdalene to tell "my brothers" that he was ascending to "my Father and your Father, my God and your God" (20:17). And his prayer for his disciples and those who would come after them is that they might be one, and that he might abide in them and they in him (17:20–24).

The Johannine references to becoming do not have evolution or continuing creation in mind. Nevertheless, a quick survey reveals the dynamic quality of John's view of human experience and transformation. John's characters often serve as representatives, either of particular groups (e.g., the religious

98 Ibid., 323.

leaders), particular responses to Jesus (e.g., those who believed because of the signs Jesus did), or humanity in general as it confronts revelation. Just as the man born blind in John 9 is an "everyman" character, so his less responsive counterpart in John 5 reflects a different response to the revelation in Jesus. Jesus asks the man at the Pool of Bethesda, "Do you want to be made well?" (5:6). Later, when Jesus finds the man in the temple, he admonishes him, "See, you have been made well! Do not sin anymore, so that nothing worse happens to you" (5:14). The healing story suggests that human beings—and by extension, for our present purposes, humanity as a whole—are capable of change through their response to the Creator, and their future will be determined by that response—either for good or ill. Later, Jesus challenges "the Jews who had believed in him" (8:30) to become his disciples, and know the truth that will make them free (8:32). Here "knowing the truth" involves more than just cognitive awareness; it means to accept the revelation of truth and live by it. Again, a change in relationship to the revelation of God in Jesus is offered as the means by which human transformation will occur. The story of the granting of sight to the man born blind affirms the same purpose for Jesus' work when Jesus says, "I came into this world for judgment so that those who do not see may see, and those who do see may become blind" (9:39). Change, indeed transformation, is inherent in human experience, and it occurs in both positive and negative directions: some gain sight; others become blind. But further, moral and spiritual development is certainly possible. The meaning of Jesus' words in John 10:16 has been debated: "I have other sheep that do not belong to this fold. I must bring them also, and they will listen to my voice. So there will be one flock, one shepherd." Regardless of whether the meaning the "other sheep" is Jewish believers in other synagogues, Gentile believers, or some other group, this saying introduces a strong theme of unity in John (cf. 11:52; 12:32; 17:11, 21–23).

Jesus came that "that they might have life, and have it abundantly" (10:10), but what we shall become, John declares, will be determined by our response to the revelation of the creator, the Logos in Jesus: "While you have the light, believe in the light, so that you may become children of light" (12:36). Our transformation moreover brings glory to the creator: "My Father is glorified by this, that you bear much fruit and become my disciples" (15:8). The Gospel is written therefore, "that through believing you may have life in his name" (20:31). The raising of Lazarus is a metaphor that points to the emergence of those becoming children of God and being raised to life. At the end of the Gospel, following his resurrection in the garden—clearly an allusion to the garden at the beginning of Genesis—Jesus reenacts the mythical depiction of the creation of Man by breathing the Spirit into his disciples (20:22).

John is a gospel of life, from the beginning of time to the undetermined future. It is also a gospel that promises that life is dynamic, “becoming,” in process of ongoing development.

4 Conclusion

We have surveyed two very different accounts of the origin and destiny of human life, one from science and one from the prologue of the Gospel of John, but in the end they may be complementary rather than contradictory perspectives. We may hear afresh, therefore, John’s astonishing claim that “All things came into being through him, and without him not one thing came into being. What has come into being in him was life, and the life was the light of all people” (1:3–4). The origin of life and its continued development over eons of time toward greater and greater complexity is perhaps the ultimate mystery.

Teilhard de Chardin and John Haught both observe that there is something anticipatory at every stage of evolution, but it can only be seen in retrospect. Who could have predicted from early aquatic life the emergence of mammals, or from early mammals the emergence of self-conscious thought? Human life has evolved from the hunter gatherers to settled communities to nations, and is now in a new emergent phase. In a very real sense, we participate in the evolution of the universe by our participation in the religious impulse.

The Gospel of John also takes a dynamic view of human development. It calls its readers to accept the revelation given through the creation, the giving of the law at Sinai, and the incarnation of the Logos, to respond in faith, and to live out the commandment of love. As Marianne Meyé Thompson put it: “. . . God is the living and life-giving Creator, who exercises sovereignty over all life, from creation to final redemption. The work of creation, the universal sovereignty over creation, and its expected final redemption are all carried on in the Gospel through the Son, and they are all expressed in terms of life.”⁹⁹ The dynamism of John’s view of life and God’s continuing work in creation is perhaps best expressed in 1 John 3:1, 3, where we read

See what love the Father has given us, that we should be called children of God; and that we are. . . . Beloved, we are God’s children now; what we will be has not yet been revealed.

99 Marianne Meyé Thompson, *The God of the Gospel of John* (Grand Rapids: Wm. B. Eerdmans, 2001), 80.

Creation continues. With human life it has reached the stage at which human beings can choose to contribute to the creative process, now the emergence of the noosphere, to use Teilhard de Chardin's term, or the call of humanity to become children of God to echo the Gospel's language, and that is both John's imperative and John's hope for humanity.

PART 1

Creation and Science



From Mapping to Meaning

David Christian

Introduction

I am neither a philosopher nor a theologian. Any originality this paper may have as a discussion of the relationship between science and ethics comes from my experience of teaching a science-based “origin story” for more than 25 years. I call that story “big history.” Big history courses take ideas, methods, concepts and information from many different disciplines—from cosmology to geology to biology and history—and patch them together into a diverse, multi-colored but coherent history of the Universe. That history is so capacious, so rich and so powerful that it can help us better understand the significance of our own strange species, *Homo sapiens*, and the strange times we live in today. Like all origin stories, whether they are indigenous dreamtime stories or the core stories of the major institutional religions, “big history” uses the best available knowledge to construct universal maps of reality. Within those maps people can understand their place in time and space, and the possibilities and roles available to them.

The reactions of my students to big history tell me that there is a deep hunger for such stories. Big history seems to be full of meaning. But in what sense is it meaningful? What is the source of meaning in a story that relies on modern science and therefore offers no creator, no deity and no teleology? Can there be meaning, purpose and ethics in a Universe without gods? What, in fact, is the relationship between science and questions of meaning, purpose and ethics?

Many of my thoughts on these questions have been prompted by a fascinating week I spent in 2013 at McAfee Theological College, as the guest of Alan Culpepper and his colleagues. They were the warmest of hosts, and we had many absorbing discussions, during which I began to appreciate how richly theologians think about the same questions of meaning that fascinate me, and how deep is the well of ideas and thought on which they can draw. Many discussions turned on the sources of meaning and morality. Unlike my hosts in Atlanta, I am not a Baptist. In fact, I do not belong to any of the major faith traditions of the modern world. Nor do I believe in the existence of a creator God. So a central question for me was: what justification can I offer for ethics, purpose and meaning in a worldview without a deity?

1 Can There Be Meaning without Religion?

I accept Alan Culpepper's argument that there are many overlaps between Christian theology and science. In a Venn diagram the circles mapping the discourses of modern Christian theology and modern science share a lot of territory. But I am also sure that it is possible to find similar overlaps within many other religious traditions or at least within some of their branches. Devout Hindus have told me that the *Mahabharata* contains much of the big history story; Muslims and Christians have said similar things about the Koran and the Christian Bible; and dedicated Confucians have assured me that the Chinese philosophers said all of this long ago. But, pagan that I am, I must confess I'm not convinced. I can see overlaps between all these traditions and between them and modern science. But I also see many important differences of approach, methodology and content. Above all, there is the fact that most practicing scientists exclude the idea of a creator god from their work as scientists, even many who do have a religious faith. That deprives them, at least in their role as practicing scientists, of what many religious believers have found the most powerful traditional source of meaning and ethical legitimation. Most scientists also exclude the notion of teleology, the idea that purpose and meaning are woven into the warp and weft of the Universe. Scientists exclude God and teleology from their scientific work because neither can be detected using the methods and forms of evidence that dominate modern science, the same methods that have created the remarkable technologies of today's world, from the internet to the Mars landers. Those same methods seem to work well in helping us manipulate our world; so the fact that they cannot demonstrate the existence of either a God or an inherent teleology is a philosophical fact of great importance, and those of us alive today must surely take it seriously.

Like most scientists and most scholars in the humanities, I regard myself as a naturalist. That is to say I try to exclude from consideration *super*-natural phenomena. I assume the existence only of those entities that I can experience directly or can grasp using the methods of science. I am not an extreme materialist; I accept the reality of phenomena such as consciousness, something palpable to all of us, though not yet well understood by modern science. Loyal Rue defines naturalism as: "the view that the order of nature is all that exists."¹ These are the grounds on which I reject the idea of a God and of a universal teleology. Science can find evidence for neither gods nor teleology, and in my view this means that to assert their existence is a matter of pure speculation.

1 Loyal Rue, *Nature is Enough: Religious Naturalism and the Meaning of Life*, Albany, NY: SUNY, 2011, 86 [kindle ed.]

How can we expect to find meaning and ethics in a Universe without gods or intrinsic purpose? Alan Culpepper suggests that we might find some answers in those areas where science and Christian theology overlap. For example, he notes Gordon Kaufman's argument that the word, "God," can be thought of as a way of describing the creativity of the Universe. Few scientists would doubt the presence of remarkable creativity in the Universe, so there is indeed an important overlap here. But, as Darwin showed, there can be creativity without purpose. The blind algorithms of natural selection can give us rabbits, redwoods and rotifers. Even more important, like most scientists I fear that the word "God" carries too much baggage to be useful in discussions about meaning. It carries such abundant associations that it will inevitably overflow the areas of overlap in the Venn diagrams linking scientific and theological discourses. The word, "God," is anthropomorphic through and through, and all but the most severe and rigorous of philosophers will find it impossible to shave away its non-naturalistic meanings and associations. Why not settle, instead, for the less loaded word "creativity"? But that, of course, may be too big a sacrifice for a theologian.

Culpepper suggests another possible compromise: placing purpose in the future rather than the past, as Teilhard de Chardin and others have suggested. I cannot see this as an improvement. The idea assumes teleology even if it redirects the teleological arrows. And at present scientists find as little evidence for a teleology that pulls us into the future as for a teleology of the remote past that *pushes* us forward. In short, the task of aligning Christian theology with modern science may be harder than Culpepper suggests. And that conclusion probably applies to all deistic religions and to all animistic traditions, in short to any philosophical or religious tradition that tries to explain natural phenomena with reference to spiritual forces that cannot be detected by the methods of science.

2 Mapping and Meaning in a Naturalistic Universe

The rest of this paper discusses another approach to the challenge of finding meaning, purpose and ethics in a universe without teleology or a God.

I begin with the analogy of mapping. All humans have constructed maps of reality; indeed so in some sense have all living organisms. Even tree roots explore and, in some sense, map the earth through which they grow. Science does the same thing. But how can we move from maps of reality that provide information about our surroundings, to *guidance* about how we should use those maps, about how we should behave and act? In short, how can we get from mapping to meaning?

Hume famously argued that statements about what is (maps) cannot logically generate statements about what ought to be (meaning). Those who claim to have found such a link are committing what G. E. Moore called the “naturalistic fallacy,” the belief that morality is inherent in the nature of things. Such a move smuggles teleology into arguments that began without teleology. Yet in practice it is extremely hard to avoid the naturalistic fallacy. In a famous passage in his *Treatise of Human Nature*, Hume notes how slippery is the slope from mapping to meaning:

In every system of morality, which I have hitherto met with, I have always remarked, that the author proceeds for some time in the ordinary way of reasoning, and establishes the being of a God, or makes observations concerning human affairs; when of a sudden I am surprised to find, that instead of the usual copulations of propositions, is and is not, I meet with no proposition that is not connected with an ought, or an ought not. This change is imperceptible; but is, however, of the last consequence. For as this ought, or ought not, expresses some new relation or affirmation, it is necessary that it should be observed and explained; and at the same time that a reason should be given for what seems altogether inconceivable, how this new relation can be a deduction from others, which are entirely different from it. . . . Thus the course of argument leads us to conclude, that since vice and virtue are not discoverable merely by reason, or the comparison of ideas, it must be by means of some impression or sentiment they occasion, that we are able to mark the difference betwixt them.²

Put slightly differently, Hume tells us that mapping cannot yield meaning. Statements about what *is* do not belong to the same philosophical universe as statements about what *ought* to be. But you must remain philosophically alert to avoid slipping between these conceptual universes. And most of us seem to nod off just as we cross from one universe to the other. Why do we all seem to nod off at the border?

Scientists usually feel most comfortable in the universe of *is*. They spend their time trying to map reality, constructing verifiable statements or mathematical descriptions about how the world is. They try to avoid slipping into statements about how the world should be, because they know how easily a sense of purpose can warp scientific research. If you really want a particular

2 D. Hume, *Treatise of Human Nature*, (London, 1738): Bk. 1, Pt. 1, § 1.

result you may miss alternative insights and you may (wittingly or unwittingly) fudge the evidence, which will warp your maps. There are many famous instances of this sort of warping, which scientists see as cautionary tales. In 1989, Martin Fleischman and Stanley Pons announced that they had achieved cold fusion, or fusion at room temperatures. Such a result would have transformed world history, so the temptation to believe in positive results must have been powerful. However, as other scientists failed to replicate their results, it became clear that Fleischman and Pons had skipped some of the protocols they should have observed before announcing their claims. More recently, we have seen the extreme caution exercised by scientists at CERN before claiming to have detected the Higgs boson. They insisted on waiting until the likelihood that their conclusion was wrong had fallen to a probability of about 1 in three and a half million, or “5 sigma”. Getting the map as right as it can be is the fundamental goal of most scientists. If Hume is right, though, this means that scientists cannot and should not try to tell us what to do with the maps they offer us. They should not expect their maps to offer guidance or meaning. And that is why many scientists are reluctant even to discuss the meaning of what they do. They fear that such discussions may force them down Hume’s slippery slope into the universe of meaning.

3 Slipping from “is” to “ought”

So what, I sometimes wonder, is the purpose of science? Even asking the question is, of course, to slip from an “is” to an “ought”. But the question may suggest a way forward because it turns out that in the real world the scientific ban on discussing meaning has limits. Even scientists nod off! Indeed, the horror with which most scientists retreat from the naturalistic fallacy already demonstrates that a sense of meaning and purpose can insinuate itself into the very process of mapping reality. Scientists clearly have a strong sense that they “ought” to map reality accurately. They had a sense that detecting the Higgs boson was important and . . . meaningful. This, I suspect, illustrates a more general truth: that we humans cannot avoid the slippage between mapping and meaning that Hume warned against. We are not Spock-like creatures, and ethics is built into our very nature. I know of no scientists who, when submitting an application for a grant, will offer the helpful advice that: “of course, this research has no meaning and no purpose.”

A sense of purpose also shapes how and what scientists choose to map. They map those features of our environment that appear to be interesting

such as . . . the Higgs boson. Examined closely, it turns out that the scientific ban on discussing meaning is indeed an important methodological principle: scientists should make sure that their hopes and fears or their political beliefs do not warp their accounts of the world. But the ban on purpose in science is far from absolute. It is a principle of method, but it does not require that scientists behave like Mr. Spock. (Indeed, there are episodes of *Star Trek* in which Spock, who had a human mother, slips reluctantly into the universe of ethics.) At some level, most scientists do believe that their work has a purpose. Einstein campaigned vigorously against the use of nuclear weapons, whose very possibility was revealed by his Theory of General Relativity. No one who worked on the Manhattan project was entirely unconcerned about the ethical implications of what they were doing.

If it is true that in practice even scientists live in a world of both meaning and purpose, what is the bridge between these two universes? Why does the slippage that Hume described seem unavoidable?

4 **The Biological Origins of Meaning? From Passive to Active Complexity**

Perhaps such behavior demonstrates that purpose and meaning are built into the Universe itself? Do we need to re-introduce teleology into scientific thought? Not necessarily because, as Loyal Rue has argued in *Nature is Enough*, a universe without purpose may nevertheless generate entities that do have a sense of purpose and meaning. Purpose and meaning are emergent properties, they are possibilities contained within the Universe, like human beings and black holes, but they are not inherent properties of the universe itself. Living organisms, including our own species, *Homo sapiens*, seem to have emerged through the mechanism of “natural selection”. Like any complex structure in a Universe dominated by the second law of thermodynamics, they require energy in order to build and maintain dikes against the corrosive force of entropy. In some entities, such as protons or stars, the forces of electro-magnetism, gravity and the strong and weak nuclear forces can build reliable structures that seem to survive in a sort of equilibrium state for billions of years. But even many non-living entities fall back quickly to a simpler state without sustained flows of energy. Chemistry is full of processes in which atomic structures relax back into a simple ground state that requires no permanent flows of energy, though even structures such as water molecules can be broken down further by disruptive energy flows. Neither simple states nor long-lived equilibrium states seem purposeful. They just are.

But at the borderline between simplicity and complexity there is a more interesting realm of complex things that seem constantly on the verge of breaking down. Living organisms are interesting because they inhabit this unstable border region. Maintaining their complex structures is difficult and seems to require constant, never-ending adjustment in order to sustain the energy flows they need, so that, unlike protons or stars, they never seem to achieve a stable, long-lived equilibrium. It may be helpful at this point to introduce a distinction between active and passive complexity. Passive complexity can exist for long periods in environments that change extremely slowly. Examples include stars, galaxies and chemical molecules. Active complexity can survive in more unstable environments, but to do so it requires two new competencies: the ability to detect changes in the environment; and the ability to respond to those changes in appropriate ways. The first ability introduces the notion of information into our story; the second introduces the notion of *homeostasis* into our story. Unless these competencies are built into their structures, complex entities in unstable environments will soon break down into their passive components. The Russian-Belgian chemist, Ilya Prigogine, referred to a whole class of structures like this as “dissipative structures,” because in order to exist they seem to manage large flows of energy which are then dissipated into their surroundings. Indeed, it is a condition of their existence that they are capable of managing such energy flows without being broken by them.

To us, active complexity, and the never-ending juggling required to maintain significant flows of information and energy in the unstable frontier lands between simplicity and complexity looks purposeful. All living organisms (and even, occasionally, non-living organisms, such as the chemical reactions known as Belosov-Zhabotinski reactions) seem to have structures that enable them to manage the energy flows they need to maintain themselves. In complex environments (and all living organisms inhabit complex environments), these mechanisms appear to constantly adjust in order to maintain the right energy flows in fluctuating surroundings. In living organisms, this endless maneuvering in response to changing surroundings is known as homeostasis; and it is surely the activities associated with homeostasis that create the impression that all living organisms have something like purpose. They seem to seek energy, and they seek it in very specific forms and from very specific sources, depending on the metabolism (or the energy-processing mechanisms) that they have inherited through the process of natural selection. Antelopes graze on grass; and lions graze on antelopes. But so unpredictable are the fluctuations of all natural environments, that homeostasis must eventually fail. Unable to secure the energy they need, organisms eventually break down into the simpler components from which they were constructed. We say they die.

The constant, restless search of all living organisms for manageable flows of energy is the first source of what we perceive as purposeful activity. To find the energy they need, all organisms must, in some sense, map their surroundings. They must know where the energy is and how to use it. So even the simplest of bacteria can move towards or away from light, or sidle towards the chemical concentrations they need. To do that they must map their surroundings, and they do so with purpose. This seems to mean that mapping and meaning are intertwined in even the very simplest of organisms. Both mapping (learning?) and learning with purpose seem to be required by the very notion of evolution through natural selection. In other words, even if there is no logical bridge between “is” and “ought,” as Hume showed, there may well be a biological bridge, constructed by natural selection and capable of carrying traffic as well as any logical bridge.

But living organisms also reproduce, and Darwin's fundamental insight was that only organisms that succeeded in maintaining themselves for long enough to reproduce will pass their genes on to future generations. That means that all organisms are born to lineages that have inherited their ancestors' ability to map their surroundings efficiently enough to extract the energy needed to survive *and reproduce*. So all organisms seem to have two qualities that look purposeful: the logic of natural selection ensures that they will inherit both the desire and the ability to seek out appropriate flows of energy, and also the desire and ability to reproduce.

Though our learning may be more complex than that of bacteria we humans also learn, and we learn with purpose. We form maps of our surroundings, and we expect those maps to help us find the energy and resources we need to survive; so we search our maps for “meaningful” locations in the landscapes that surround us. And that is why we humans find it impossible to avoid moving between mapping and meaning and back again. That also explains why we want our maps to be accurate. Inaccurate maps mean dead organisms. The antelope that doesn't notice the lions around a waterhole is unlikely to reproduce. Foragers who are ignorant about the animals and plants around them will not survive. But the inextricable link between mapping and meaning also explains why our maps are not generic; they are built with purpose. We do not map everything; we map those features of our environment that are of significance to us, that have meaning. (The Higgs boson?) A map of the Universe that was created without any purpose would lack interest to other humans. It might, for example, describe the vacuum, on the grounds that most of the Universe is vacuum. It might do so with great precision and rigor; but it would lack appeal or meaning for human beings, while stories about animal migrations or successful hunters or histories of the community of which you are a member have both meaning and appeal.

5 Mapping and Meaning for Humans

So we humans cannot avoid slipping from mapping to meaning because we are products of natural selection, which generates entities that map their surroundings with purpose. Nevertheless, there are important senses in which human maps are also very different from those of bacteria or chimpanzees—indeed, different from those of all other organisms.

First of all, human maps are extraordinarily large, complex and fine-grained. But so are those of other brainy animals from dolphins to chimps. Even more important is the fact that human maps are built collectively; indeed, that is precisely why they are so large, so precise and so detailed. And that is why they are so powerful and why they give our species such astonishing power over our surroundings and over the energy flowing through the biosphere. Bacteria construct simple maps driven by simple genetic algorithms and constructed by individual organisms. Intelligent organisms map their surroundings in richer and more complex ways by constructing maps within their brains. But the size and power of the individual brain limits the complexity of the maps that chimps or dolphins or elephants can build. And that, in turn, limits their metabolic toolkits—the variety of methods they can use to extract energy from their surroundings. A chimp can learn a lot in a lifetime, but the limitations of chimp language ensure that little of that knowledge will be shared with other chimps. There is some sharing; chimps have language and in some sense they even have culture. But most of what they learn is what they learn as individuals. And it seems that chimps cannot communicate precisely or efficiently enough to ensure that information learned by individuals can be pooled within the community so that it can accumulate over the generations. We know this is true because if it were not, chimps would have access to technologies that would have improved over the millennia, and we would see evidence of such change in the archaeological records left behind by chimps over thousands or millions of years. Imagine what they could do if they could pool the knowledge of each individual brain into a collective store of knowledge that could grow over time.

That's what humans can do; and that's what makes us different. In the human archaeological record, we *do* see evidence of profound changes in behaviors and technologies over many generations. The critical difference is in the communicative efficiency and power of human language. In ways we do not fully understand, human language has crossed a threshold of efficiency beyond which information can be shared by many individuals, stored in the collective memory, and added to generation by generation. As a result, individual humans have access to vast and slowly improving maps of their surroundings created by information pooled over many generations by millions of

other individuals. The crossing of this small threshold in linguistic efficiency is transformative. It makes us the first species in four billion years in which the ability to manage the energy flows of our environment has increased over the millennia. It explains why, today, we dominate our planet in the epoch that some are beginning to call the “Anthropocene,” the first epoch in which, for better or worse, a single species (our own) dominates change across the biosphere. As a species we are astonishingly quick learners. Are we clever enough to take on the new task of managing an entire biosphere, and doing it well enough to ensure a flourishing life for our grandchildren and their children?

I call our unique capacity to share and accumulate information “collective learning”. Collective learning gives each one of us access to information accumulated by millions of other humans, both living and dead. To see the truth of this, ask how much knowledge of the world you would have if you had never talked with another human in your entire life. Could you build a car? Or a house or a mobile phone? Could you feed yourself? We humans seem to live inside each other’s heads. And at least some of the information we share is about new ways of exploiting our environments, which explains our capacity to keep generating new technologies that allow us to manage increasing amounts of the energy flowing through our biosphere. As foragers our Paleolithic ancestors learned to exploit multiple environments from tropical forests to arid deserts to Siberian tundra. By ten thousand years ago, our ancestors had learnt how to extract the resources needed to survive on every continent except for Antarctica. As a species, our collective control of biospheric energy had slowly increased. Then, as the world filled up by the end of the last ice age, some of our ancestors began to practice more intensive forms of exploitation. We call these agriculture. Agricultural practices allowed our farming ancestors to alter landscapes so as to reduce the number of organisms they could not use, and increase the number of those they could use. The result was often a reduction in biodiversity, but an increase in the energy flows controlled by our species. Agriculture, properly understood, was an energy grab by a single species. More and more of the energy flowing through the biosphere was diverted to human use. Human populations began to grow; campsites gave way to villages, to towns and eventually to cities and the huge social structures we describe as “civilizations”. More people exchanging more information synergized collective learning, and ensured that the pace of innovation would accelerate.

Then, just two hundred years ago, the same restless process of accumulating new information about our surroundings led some of our ancestors to stumble on an entirely new, and vastly greater source of energy in fossil fuels. While farming tapped increasing amounts of energy captured through photosynthesis over several decades—burn a piece of wood and you are capturing energy

generated in the core of the sun within perhaps the last 30 years—fossil fuels represented solar energy captured by photosynthesis and accumulated in fossilized forms over 300 million years. Fossil fuels gave us access not to just 30 years' worth of the sun's energy, but to stores built up over 300 million years. This energy bonanza explains the sudden transformations that created today's world.

Collective learning explains not just the power of human knowledge but also its ethical loading. Human knowledge is the product of collaboration between billions of humans, so we are a profoundly social species. Most of the maps in our brains, as well as most of our sense of meaning, come not from the pondering of lone individuals, but from direct or indirect exchanges with millions of other humans. So we have to constantly negotiate with other individuals and these negotiations generate rules about how we should relate to other individuals. Other intelligent, social species, from chimps to dolphins, also have to negotiate with other individuals, and to that extent we can say that their sense of meaning shades over into rudimentary systems of ethical rules. But humans share on utterly different scales and the constant, endless sharing of ideas, information, thoughts, jokes and sentiments ensures that ethical rules play a much larger role in human societies.

Indeed, ethical rules are built into the very fabric of human maps of reality. Those maps were co-constructed collectively, community by community, so their meaning is inherently social. It is impossible for us to conceive of a sense of purpose or meaning that is not shaped to some degree by the needs and purposes of many individuals, in short by ethics. Collective learning also explains the astonishing diversity of human ethical systems, because each community builds its maps of reality in slightly different ways. It is tempting, of course, to believe that there may be a core of ethical rules that lie beneath the surface in all ethical systems, a bit like a Chomskyian Universal Grammar; but teasing out a universal ethics is not an easy task because the differences between ethical systems often seem to loom larger than the commonalities.

However, in an increasingly globalized world, there is growing pressure to tease out general principles that can be shared by communities around the world. Our modern maps of reality share information globally and they are so rich that they have made us masters of the planet. Equally global today are the negotiations between human communities that lie behind all ethical systems. Can aggregated global maps of reality help us figure out ethical rules that are acceptable to most of the 7 billion humans on earth today? How should we use our knowledge of nuclear weaponry, or of genetic engineering or of climate change and declining biodiversity? Our collective power is now so great that failing to generate global agreement on such issues could prove catastrophic.

Finally, and perhaps profoundest of all, today the collective learning of billions of humans has generated maps of reality so rich that they seem to be telling us the secrets of the Universe itself—how it was made, when it was made, how it has evolved over many billions of years. A blind, apparently purposeless universe seems to have created unwittingly a creature that can think about, ponder and consider whether the Universe has meaning. This is meaning in the philosopher's sense. All human societies seem to have constructed maps that are meaningful in this sense. We often describe them as "origin stories". But, as the world has become increasingly connected in recent centuries, the maps, too, have tried to integrate an increasing volume and diversity of information. Indeed, one possible definition of modern science is that it is the first system of knowledge that tries to integrate knowledge not just from a single community or cultural tradition, but from across the entire world. The extreme complexity of that task may help explain the care with which modern scientists approach the task of mapping. The mapping has to be effective because it is driven, in part, by the challenge of feeding, organizing, and clothing a world of 7 billion humans. How can we generate and manage the huge energy flows needed to support today's staggeringly complex global society?

But science seems to be driven by more than need. It is also driven by curiosity. How else can we explain the vast amounts of money lavished on projects such as the Large Hadron Collider outside of Geneva? Of course, curiosity itself is intrinsic to our nature as living organisms. It is the name we humans use for the impulse to map our surroundings, an instinct which, as we have seen, is built into all living organisms, indeed, into all complex structures inhabiting the unstable borderlands between chaos and order. No wonder the students in my big history classes are curious about the origins of our Universe! For biological organisms such as us, mapping and meaning do not belong to different philosophical universes even if, as Hume pointed out, they do belong to different logical universe. In the real world, mapping and meaning are the yin and yang of human existence.

6 Conclusion

In summary, our nature as biological organisms, as products of billions of years of natural selection, explains why we can have a sense of meaning, purpose and ethics, even if we live in a Universe without a god and without teleology. It explains why we cannot avoid slipping from mapping to meaning, from "is" to "ought". We would not exist if we were not capable of constantly adjusting to our complex surroundings. And that constant adjustment requires effort,

a sense of purpose, and an ability to map our surroundings; it requires what we perceive as purposeful activity. We humans are different because we map our surroundings collectively. We share what we know, and over time what we know increases. That makes us powerful. But it also makes us ethical because, as animals that survive by sharing, our sense of purpose cannot be shaped just by our own needs as individuals. It is also shaped by the needs of others. It includes other members of our community, and it includes a sense of right and wrong ways of behaving towards others. Finally, our collective mapping is the source of our astonishing knowledge about the world. It explains why we humans can apparently figure out how the Universe itself evolved over 13.8 billion years.

Big History and Big Questions

Ted Peters

In his essay, “Children of God,” Alan Culpepper tells us how cosmic consciousness raises existential questions: (1) Who are we? (2) Who is God? and (3) What is the meaning of life? Strictly scientific accounts of cosmology and evolution cannot answer these questions. However, a biblically based theology offers answers that begin with affirming the role of a Creator, a divine purpose for human life, and the place of humanity at the apex of the created order, “a little lower than the angels” (Ps 8:5). The cosmos has meaning, and so does our life within this cosmos. This is because the cosmos is the creation of a loving and gracious God.

If we would employ Paul Tillich’s method of correlation, we would contend that these existential questions are already buried within scientific accounts of our cosmos and the evolution of life.¹ What the theologian does is dig them out. The theologian needs to excavate the scientific landscape and uncover questions of origin and meaning hidden just below the surface.

Curiously, some scientists or, better, science aficionados put up no-trespassing signs. They wish to keep their top soil in place. They object to theologians digging around and exposing these existential questions, questions which science alone cannot even pose let alone answer. The situation is even more delicate, because all too frequently genuine science is hidden beneath a layer of ideology. When actual science is buried beneath an overlay of naturalism, materialism, and reductionism, then existential questions about origin and meaning remain smothered, inaccessible, unaskable. Science per se is not resistant to asking existential questions, but an ideology of naturalism is. It takes a perceptive theologian to see the difference. It takes a courageous theologian to climb the fence, enter the plowed field, and dig beneath the surface.

1 Science vs. Scientism in Big History

Just a little shuffling of the trowel will reveal that some science is covered over by scientism. Genuine science attempts to describe the world we live in with as little ideological overlay as possible. Genuine science is the friend of the

1 Paul Tillich, *Systematic Theology* (3 Volumes; Chicago: University of Chicago Press, 1951–1963), 1: 59–66.

theologian who appreciates the intricacy and magnificence of God's creation. Scientism is another matter. Scientism is an ideological overlay that hides authentic science under a blanket of naturalism, materialism, and reductionism. "Scientism," according to Michael Dodds, "is fundamentally the transformation of the methodology of empirical science into a metaphysics, a move from the quantitative investigation of nature to the assumption that being is always quantitative. While the former is a legitimate methodology, the latter is mere ideology."² The theologian's first soil turnover should uncover the difference between science and scientism.

In this instance, the theologian dare not obey the no-trespassing signs put up by naturalists. The theologian needs to climb over the fence and into the plowed field with shovel in hand. By digging beneath the surface, eventually existential questions become exposed. Then, the theological task becomes clear: make this scientific field fertile for divine revelation and human meaning.

Now, let's apply what we have just said to the growing university discipline of Big History, which is becoming increasingly popular in television documentaries. Like waving a red *muleta* in front of a bull, Big History challenges the theological *toro* to snort and charge toward the threat. The *muleta* may look like science; but hidden beneath it is the matador's *estoque* or sword. That sword, a naturalistic scientism, could mean death for the theologian's meaningful worldview. Much is at stake in this *corrida de toros* ring.

Having mixed my metaphors between digging beneath the surface and fighting a bull, I would like in what follows to describe the challenge to the theologian posed by Big History and related debates regarding the relationship between authentic science and naturalistic ideology. Genuine science is the theologian's friend. Philosophical naturalism is the top soil covering over what science can actually say about our universe; it is the sword hidden beneath the red *muleta*.

Big History looks like science. It's not science, exactly. Even though it looks like science, it is actually a brand of scientism. Big History is a constructed story of the history of our physical universe that is purposefully based on current scientific knowledge. It tells a physical story and places the human chapters of this story within a larger natural description of reality. The human story becomes one chapter in a larger story of nature. This story is big. It's dramatic. It's almost overwhelming. It appears at a time when our generation of young people are ready to see themselves within the context of a near unfathomable 13.8 billion year story.

2 Michael J. Dodds, O.P., *Unlocking Divine Action: Contemporary Science and Thomas Aquinas* (Washington DC: Catholic University Press of America, 2012), 51 n27.

Now, in what follows I will not be able to address fully all three of the existential questions raised by Culpepper. I will focus primarily on the question of meaning and, secondarily, on the question of God. My primary contention will be this: under the surface of the field of Big History lies the underdeveloped role played by human subjectivity. Because meaning is a product of the story we human subjects tell about ourselves, and because this is ignored by big historians, the theologian must dig with critical trowels in order to uncover it. To say it another way, I will try to show that the question of meaning is tied to the question of human consciousness or subjectivity; and in Big History this is hidden beneath a blanket of naturalistic philosophy disguised as objectivity. It's time to dig.

2 Big History and Big Questions

Here's the covered over problem: why does it seem that retracing the big history of the universe leaves us with a feeling of meaninglessness? A strictly scientific reconstruction of nature's history does not by itself yield a sense of purpose, direction, or meaning. Attempts to derive meaning from nature's grandeur or beauty or complexity fall flat. Attempts to make the present generation of human beings on Earth morally responsible for taking care of the planet seem contrived. Nature all by herself seems nihilistic. Nature does not tell us what big history means; nor does the story of our universe provide a moral value let alone a *summum bonum* to guide *Homo sapiens* on our planet.

To open his new book, *The Future of the Mind*, physicist Michio Kaku offers a near aphoristic statement: "The two greatest mysteries in all of nature are the mind and the universe." At this point Kaku turns to what we call the "big questions." Kaku adds: "Ever since our ancestors first gasped at the splendor of the starry sky, we have puzzled over those eternal questions: Where did it all come from? What does it all mean?"³ Further, the mind and the universe "also have a common history and narrative."⁴ This is the key point: the mind and the universe share a common history and narrative. Any story of the universe which fails to account adequately for mind or consciousness or subjectivity will be truncated. This is the weakness of Big History.

In response to the question of meaning, I will raise two hypotheses. The first is a methodological hypothesis: *a strictly scientific treatment of Big History*

3 Michio Kaku, *The Future of the Mind: The Scientific Quest to Understand, Enhance, and Empower the Mind* (New York: Doubleday, 2014), 1.

4 Ibid., 2.

assumes a third person spectator viewpoint or objective gaze which leaves out any first person or subjective perspective, thereby preventing meaning from coloring the Big History picture. Meaning is a product of subjectivity, not objectivity. An exclusively objectivist method would filter meaning out of its picture like a fish net filters out minnows when catching carp. One can discern meaning only when one incorporates subjectivity into the larger story told by Big History.

The first hypothesis poses a question, and the second hypothesis poses an answer. The first hypothesis suggests that Big History as currently formulated is incoherent. The second hypothesis suggests a route to follow to retrieve coherence.

The second is a physical and perhaps even ontological hypothesis: *indeterminism at the quantum level of physical activity combined with the fine tuning of the initial conditions at the Big Bang establish that contingency belongs inherently to the physical make-up of the universe.* Or, to put it another way, the fine tuning of our universe provides a clue for integrating our knowledge of the universe with our knowledge of our subjective selfhood and, hence, our capacity for constructing a Big History replete with meaning. Actually, the initial conditions at the Big Bang raise the question of God as well as the question of meaning. This leads to my focal task: to ground subjective meaning objectively in the history of the cosmos.

Because the material universe incorporates not only laws of nature but also contingency, randomness, and unpredictability, nature can have its own history. History is the story of change within continuity; and change relies upon contingency. One implication of the second hypothesis connects it to the first: *physical contingency establishes a necessary condition that makes possible 1st person subjectivity, free will, choice, and thereby human meaning.* Meaning goes together with selection between alternatives, with actualization of some potentials while others remain unactualized, in short, with choice. Meaning requires more than mere *Kontingenzbewältigung* or contingency coping; meaning arises from the subjective interpretation of the remembered history and expected future of contingent events.⁵

5 Meaning and purpose in light of teleology are by no means easy to delineate with any specificity. On the one hand, they require the remembrance of past contingent events within the framework of a story. On the other hand, the story with purpose leads us to a future, an as yet incomplete future. The end of the story cannot yet be told, so to speak. This leads Terrence W. Deacon to surmise that teleology in nature's history must take into account what is absent, what is not-yet. His thesis "Is that the answer to the age-old riddle of teleology is not provided in terms of 'nothing but ...' or 'something more ...' but rather 'something less. ...' This

3 Big History, the Scientific Gaze, and Meaningless Nature

Big History, according to the International Big History Association, “seeks to understand the integrated history of the Cosmos, Earth, Life, and Humanity, using the best available empirical evidence and scholarly methods.”⁶ A related definition of *Big History* demonstrates the parameters within which my first hypothesis becomes relevant. Big History is “the attempt to construct a united account of the past at all scales from those of human history to those of cosmology; the modern scientific equivalent of traditional origin stories.”⁷ According to this definition, Big History attempts to provide “the modern scientific equivalent of traditional origin stories.” Pre-modern mythical or religious origin stories are now out of date, ready to be replaced by the scientized origin story told by big historians.

In actual practice, the big history told by Big History restricts all accounts to naturalistic explanations. Supra-naturalistic claims along with claims about the divine and claims of human meaning must all be filtered through the naturalistic strainer. More specifically, the strainer is evolution. The sieve through which all data will be interpreted is biological evolution.

As we all know, Charles Darwin’s theory of evolution successfully provided a natural explanation for speciation. Darwin’s was a biological theory; it had nothing to say about physics, chemistry, or the origin of life. According to the big historians, however, everything evolves. “The scope of the concept of evolution,” writes big historian Ken Gilbert, is “expanding . . . to include cosmic and cultural history as well . . . The principles of evolution would seem to be a *sine*

is the essence of what I am calling absentialism.” *Incomplete Nature: How Mind Emerged from Matter* (New York: W. W. Norton, 2012), 42. This implies that Big History cannot be considered meaningful unless it is told as a story with a still outstanding and yet-to-be-determined future.

- 6 Big History Association, <http://www.ibhanet.org/>, accessed 3/25/2014. This definition derives in part from the work of Walter Alvarez, who has been teaching Big History at the University of California at Berkeley since 2006. <http://eps.berkeley.edu/people/walter-alvarez/>. The late Robert Bellah, also at the University of California at Berkeley, unites history with prehistory. “History goes all the way back and any distinction between history and prehistory is arbitrary. That means that biological history—that is, evolution—is part of the human story all the way through.” Robert N. Bellah, *Religion in Human Evolution From the Paleolithic to the Axial Age* (Cambridge MA: Harvard University Press, 2011), ix.
- 7 David Christian, Cynthia Stokes Brown, and Craig Benjamin, *Big History between Nothing and Everything* (New York: McGraw Hill, 2014), 307.

qua non to any grand unifying theory.”⁸ Gilbert grounds his position in his own ontology by contending that there is an “*evolutionary force* in nature analogous to the force of gravity.”⁹ This force is specifically the force that drives the material world from simplicity toward complexity, a force still at work today. [Note: physics knows only four forces, including gravity; suggesting that the Big History concept of force derives from the Star Wars movies, not science.] David Christian calls Big History “Universal Darwinism.”¹⁰ Big History does not merely tell the story of our universe; rather, it explains this story in terms of an evolutionary force. The grand unified theory based upon evolutionary naturalism constitutes a very ambitious metanarrative, an exhaustive explanation of everything.

This leads us to uncover a hidden equivocation, a hidden double meaning for the term *big history*. On the one hand, big history is subject matter. It includes the story of the natural world as a scientist would tell it; and it includes the story of human civilization as a historian would tell it. Big history places human history within nature’s history. To attempt to construct such an account of big history, in my judgment, is a good idea.

However, beware. The second use of the term refers to the discipline of researching and teaching the subject matter. *Big History* is what those who call themselves “big historians” teach. In 2010 professional big historians organized themselves into a society, the International Big History Association. These big historians bring a perspective or a filter to the subject matter. They interpret the subject matter of big history through the lenses of naturalism. According to naturalism, nature is the only reality; and nature is best understood scientifically. This leads big historians to examine our past in strictly naturalistic categories, excluding supra-natural explanations or theological interpretations. This places the field of Big History among the self-avowed secular or non-theological disciplines.

Even so, big history raises existential questions. Inherent in the scientific accounts of nature’s history are questions about the beyond, about the transcendent, about the origin and destiny of the universe. Inherent also are questions of meaning, purpose, and morality. A strictly naturalistic account is neither able to pose questions dealing with transcendent reality, nor can

8 Ken Gilbert, “The Universal Breakthroughs of Big History: Developing a Unified Theory,” in *Teaching and Researching Big History: Exploring a New Scholarly Field*, eds. Leonid Grinin, David Baker, Esther Quaedackers, and Andrey Korotayev (Volgograd, Russia: Uchitel Publishing House, 2014), 135.

9 Ibid., 142.

10 David Christian, “Understanding and Explaining Big History,” *ibid.*, 20.

it ask questions of human meaning. Yet, we who study the subject matter of big history want to ask these questions. Have we come to a curious threshold, where *big history* implicitly asks the question of God while *Big History* explicitly excludes the question of God? One of the first pieces of soil the theologian digs up should make us aware of the possible confusion between big history as subject matter and Big History as a profession with a particular mission and ideology.

In order to avoid confusion, I plan to distinguish consistently between big history as subject matter and Big History as a professional point of view. I will put the subject matter of *big history* in the lower case. As a subject field, big history will appear on lists that might include physics, chemistry, mathematics, literature, economics, history, and theology. When I refer to what is taught by the big historians, I will treat it as a proper name and use upper case: *Big History*. As Big History (abbreviated BH), I will designate a specific school of thought with a specific professional perspective. As a proper name, Big History will roughly parallel what we expect from the World History Association or the American Humanist Association.

4 **Big History and the Origin of All Things**

BH teachers want to replace pre-modern origin stories with their own scientific origin story. Now, I ask: is this coherent? The attempt to tell a scientific origin story immediately confronts two problems: the problem of origin within science and the problem of meaning within science.

First, scientifically speaking, there is no origin. One Big Bang scientist, chair of the astrobiology program at the University of Arizona, Chris Impey, reminds us that the concept of the Big Bang takes us beyond what can be known empirically or described mathematically. "I'm tempted to say that scientists don't go near . . . philosophical questions. What I do say is that the scientific theory of the big bang doesn't answer the question of genesis. It points back to a state of affairs where current scientific theories lose their traction. This corresponds to a time when 100 billion galaxies were squeezed into a region smaller than a proton [Planck scale]."¹¹ We can get back to Planck time at 10^{-43} seconds following the beginning of the original bang, but not to the origin per se. In short, our best science has no story of origin.

11 Chris Impey, *Humble Before the Void* (Conshohocken PA: Templeton Press, 2014), 154–55.

5 Who's History is Big History?

The second problem is the problem of meaning in any story of origin. A strictly scientific equivalent to a traditional origin story will necessarily become a story without a traditional meaning. Meaning is not admitted into scientific explanations. Refusal to consider meaning is simply part of the scientific method. Further, BH will work without the subjective resources to construct meaning. In order to experience meaning in telling the story of our universe we must include a subjective dimension. It is with this in mind that I formulate my first hypothesis: BH's strictly scientific treatment of big history assumes a third person spectator viewpoint or objective gaze which leaves out any first person or subjective perspective, thereby preventing meaning from coloring the BH picture. In short, the very concept of BH is founded on an internal contradiction; it is the contradiction between a meaningless sequence of natural and human events told as a story of origin that, in principle, should be meaningful to somebody. Who?

We must pose a postmodern question: whose history is Big History? BH is a form of metanarrative; and postmodernists worry about the hegemony problem. Metanarratives justify power structures; and BH would serve to justify a power structure within today's university life. Michele Foucault and his colleagues demonstrate the postmodern concern over the struggle between dominant and marginalized "knowledges."

We are concerned, rather with the insurrection of knowledges that are opposed primarily not to the contents, methods or concepts of science, but to the effect of the centralizing powers which are linked to the institution and functioning of an organized scientific discourse within a society such as ours.¹²

As we have mentioned, relevant to the issue of intellectual hegemony is the denial by postmodern thinkers of the very possibility of an adequate or just metanarrative. That is, there is no value-neutral or meaning-neutral stance, say postmodernists. Therefore, every metanarrative is perspectival whether its projectors recognize their perspective or not. Every metanarrative comes from some place and reflects somebody's social location, tradition, and vested interests. How might this apply in the case of BH?

12 Michel Foucault, *Power/Knowledge: Selected Interviews and Other Writings: 1972–1977*, ed. Colin Gordon (New York: Pantheon Books, 1980), 84.

BH as Universal Darwinism constructs a metanarrative. It must if it is to be big. It must if it is to be history. Now, I approve of such a metanarrative. I do not belong to the skeptical school of deconstructionist postmodernism. Yet, the question remains: who's subjective perspective determines the meaning of BH? Either we acknowledge or we hide the answer. I recommend we acknowledge it, own it, and affirm it.

Our culture, like every coherent and enduring culture, requires a metanarrative—usually in the form of a cosmology or myth—if it is to enjoy meaning, if it is to understand itself. Yet, if big historians adopt a strictly scientific perspective without incorporating the subjective dimensions of our distinctively human reality, it will be difficult to acknowledge the perspective of the big historian and even more difficult to appreciate the history of human subjectivity which makes historical meaning possible.

6 Is Nature Mindless?

Here's the problem again. Any story of nature's history told strictly from within the scientific gaze requires an objectivist or third person perspective.¹³ It silently discards the first person perspective.

Now, please do not mistake me. I celebrate the scientific gaze. This third person gaze has proved to be of inestimable value during the rise of the natural sciences in the modern West. Restricting itself to empirical research and rational reflection, the scientific method has demonstrated its fruitfulness beyond measure. Scientific research is progressive, leading daily to new discoveries and new knowledge. Modern civilization can only say "thank you" to our scientific method and to the energy of the devoted researchers among us. The price paid for this scientific advance, however, has been the sacrifice of meaning and the game of pretend that says subjectivity does not count in human knowing.

13 In principle, the opposite is true: any construction of the history of nature is the product of subjectivity, of someone's subjective attempt to constitute and maintain meaning. What we learn from the empirical facts derived through science tells us only about the present moment; to add a past or future is the act of a subjective addition. "The order of nature cannot be justified by the mere observation of nature. For there is nothing in the present fact which inherently refers either to the past or to the future." Alfred North Whitehead, *Science and the Modern World* (Cambridge: Cambridge University Press, 1926), 64–65. Big History is observation of nature plus a reconstruction of nature's history produced by someone's subjectivity in search of meaning. To pretend that this is not the case misleads us.

We discover this when we shuffle our theological trowel below the soil surface. Here, we uncover an enormously influential assumption at work in modern science, namely, the exclusion of mind, consciousness, personhood, and, therefore, meaning. Modern science studies the objective world, not the subjective domain. This applies dramatically to both evolutionary theory and contemporary neuroscience. Evolution fails to account for the origin of life; and neuroscience fails to account for consciousness. This has led philosopher of science, Thomas Nagel, to complain about the *a priori* narrowness of modern scientific methods. “The great advances in the physical and biological sciences were made possible by excluding the mind from the physical world. This has permitted a quantitative understanding of that world, expressed in timeless, mathematically formulated physical laws. But at some point it will be necessary to make a new start on a more comprehensive understanding that includes the mind.”¹⁴ The reductionism hidden within the materialism of contemporary evolutionary theory makes it impossible to deal adequately with the origin of life and the dynamics of mind; and without attending to these we cannot attend to the question of human meaning. “It is *prima facie* highly implausible that life as we know it is the result of a sequence of physical accidents together with the mechanism of natural selection.”¹⁵ A fully adequate naturalism as well as an adequate theological worldview must see human subjectivity as ontologically constitutive of cosmic reality. Until we grant this scientifically, science will be deaf and dumb to the question of meaning.

So, when we place human history within the larger context of BH’s Universal Darwinism, we are placing the human spirit within the context of a materialist description of material reality. Astrobiologist and cosmologist Chris Impey, mentioned above, recognizes the difficulty this poses. “Materialism is science’s greatest strength and its greatest limitation. . . . theories cannot explain consciousness or the profound capabilities of the brain. They’re mute to meaning. Materialism casts no light on morality or the human condition.”¹⁶ Impey is a scientist who recognizes the value of the materialist gaze on reality; but he wants to avoid slipping into the reductionist temptations of scientism.

14 Thomas Nagel, *Mind and Cosmos: Why the Materialist Neo-Darwinian Conception of Nature is Almost Certainly False* (Oxford, UK: Oxford University Press, 2012), 8.

15 *Ibid.*, 6.

16 Impey, *Humble Before the Void*, 119.

7 History and Big History

I will define *history* as the chronicle and interpretation of past contingent events. If nature were an eternal machine operating according to unalterable principles, it would undergo no change and, therefore, have no history. Only the sequence of contingent or unpredictable events makes history possible; and a sequence of contingent events embedded within a subjective field of meaning is what makes distinctively human history possible.

As a series of contingent events, there is a minimal sense in which nature can have its own history even apart from the human gaze.¹⁷ But, nature's history is without memory; and memory is a product of subjectivity. What is distinctively *human* history is constituted by the remembrance and recalling of past contingent events. Future events cannot be considered history because they are still contingent and thereby unpredictable. However, expectations and hopes for the future condition or influence the meaning subjectivity derives from the recall of past events. Technically, human history consists solely of past contingent events remembered by someone's subjectivity, even though future expectations influence the horizon of meaning within which past events are interpreted. Actually, human meaning accents the past with expectations or even hope for the future. In sum, human history is the construction of someone's subjectivity consisting of remembered past events spiced with hope for contingent events which have not yet happened.

"History is at one and the same time happening and consciousness of this happening, history and knowledge of history," writes philosopher Karl Jaspers.¹⁸ History begins with happenings, events, *was geschieht*. These events are remembered and told in the form of a story, *Geschichte*. The research and inquiry that retrieves what happened in order to tell the story is the discipline of history, *Historia*.

What human historians remember—and record for later reading—are past events organized according to some pattern or purpose or framework of meaning. Some events are selected into this history, while others are either ignored or selected out. What events are recalled are organized according to some value system, some reason for their recollection. As such, human history is the product of subjectivity, somebody's subjectivity who is writing a meaningful account. Even what we know as Big History, which incorporates pre-human or strictly natural events, is a product of human subjectivity. Big History is a

17 Physicist Carl Friedrich von Weizsäcker has contended that we should view nature in historical categories. *The History of Nature* (Chicago: University of Chicago Press, 1949).

18 Karl Jaspers, *The Origin and Goal of History* (London: Routledge, 1953), 234.

product of the human historian selecting events to recall according one or another purpose or design or story. Without human subjectivity, there would exist no Big History in the remembered sense.¹⁹

For history to emit meaning, it must take the form of a story (*Geschichte* in German means both history and story). This story has a beginning combined with a remembered series of contingent events which partially or completely explains why things are the way they are at the present moment. The meaning of the present is dependent upon its larger context which reaches back into the past with remembrance and toward the future with hope. The story continues.

With this observation, a fundamental problem stands up and demands recognition: is subjective meaning arbitrary, or does it arise from objective reality? Is history built into nature, or is it painted over nature? Might there be a connection between nature and meaning?

8 Scientism and the Reductionist Gaze

When the scientific gaze turns science into scientism—that is, when science becomes a worldview or ideology—then, nihilism sets in. The nihilism built into scientism finds a dramatic voice in biologist Jacques Monod: “The ancient covenant is in pieces: man at last knows that he is alone in the

19 According to Columbia’s John Herman Randall, The term *history* “is a double-barreled word: it means both what has happened, *Geschichte*—*was geschieht*—and the knowledge and statement of what happened, *historia*.” He adds, “A history thus always involves the relation between an outcome in a present, and the past of that present. It will have both a determinate ‘focus’ in a ‘present’, and a past from which that focus selects what has a bearing on that particular history.” John Herman Randall, Jr., *Nature and Historical Experience* (New York: Columbia University Press, 1958), 29 and 36. For Randall, nature can have a history if nature’s course of events is remembered by a human community in a specific present moment. According to R. G. Collingwood, in contrast, nature apart from human subjectivity cannot have its own history. “In the case of nature, this distinction between the outside and the inside of an event does not arise. The events of nature are mere events, not the acts of agents who’s thought the scientist endeavours to trace. . . . the events of history are never mere phenomena, never mere spectacles for contemplation, but things which the historian looks, not at, but through, to discern the thought within them. . . . To discover that thought is already to understand it.” R. G. Collingwood, *The Idea of History* (Oxford, UK: Oxford University Press, 1946), 214. For von Weizsäcker, nature can have its own history because it is constituted by a series of events that have happened. For Randall natural events would be historical if they are remembered by the human community. For Collingwood, history applies solely to human history where past thoughts are re-thought by the historian.

unfeeling immensity of the universe, out of which he has emerged only by chance. Neither his destiny nor his duty have been written down.”²⁰ Similarly, physicist Steven Weinberg is remembered for saying, “The more the universe seems comprehensible, the more it also seems pointless.”²¹

The meaninglessness of nature as viewed through microscopes and telescopes has been exacerbated by the idea of a closed causal nexus. However, two indisputable realities do not fit this model of a closed causal nexus. The first is contingency. The second is subjectivity. Neither contingency nor subjectivity simply fit within the idea of a closed physical universe. Yet, who can deny that natural events are contingent or that our human consciousness is real?

In short, any history which does not include the history of subjectivity as its object would not be history; it would amount to a mere agglomeration of natural facts strung together. In addition, any history which does not acknowledge the meaning structure presumed by the historian telling the historical story would disguise his or her subjective perspective; and this would imply, *de facto*, a form of nihilism.

9 The Subjective Gaze

In the pantry of human subjectivity we find a spice rack of delightful tastes: first person perspective, autonomy, relationality, free will, choice, value, significance, beauty, memory, expectation, and, of course, meaning. None of these traits of subjectivity can be accounted for by a materialist model. Nor can they be exhaustively accounted for by strictly third person or objectivist examination. An enormous domain of experience simply lies outside the illuminative power of the reductionist model or the objectivist gaze. Yet, subjectivity is real.

20 Jacques Monod, *Chance and Necessity*, trans. A. Wainhouse (London: Collins, 1972), 167.

21 Steven Weinberg, *The First Three Minutes* (London: Andre Deutsch, 1977), 149. “It is of no concern to nature *at large* what lives or what dies, because there are no discernible fixed purposes in the order of nature.” Paul Kurtz, *The Turbulent Universe* (Buffalo NY: Prometheus, 2013), 36. Physicist and astrobiologist Paul Davies believes the human spirit wells up and seeks unity and meaning and fulfillment in our understanding of the universe. To leave reality divided into meaningless nature and deluded humanity is unsatisfying. Perhaps we do not need to. Perhaps the universe is designed for us, for our subjectivity, our purposes, and our meaning. “The fact that the universe conforms to an orderly scheme, and is not an arbitrary muddle of events, prompts one to wonder—God or no God—whether there is some sort of meaning or purpose behind it all.” *The Goldilocks Enigma: Why Is the Universe Just Right for Life?* (New York: Houghton Mifflin, 2006), 15–16.

No one could possibly deny the reality of subjectivity, because in doing so such a subjective judgment would only prove the existence of the subject making this denial. It would be a repeat of Descartes speaking in the first person, *cogito ergo sum*, “I think, therefore, I am.”

Perhaps we have come to a fork in the road. If we limit our gaze to that of a third person spectator scientist, we will find ourselves living in a universe devoid of direction, purpose, or meaning. The universe would have no story of its own. This would deny integrated knowledge and be unsatisfying to the human spirit. However, if in our subjectivity we paint over this meaninglessness with our favorite values or pet moral concerns, then the resulting meaning will appear arbitrary, artificial. This too would deny integrated knowledge and be humanly unsatisfying. Somehow we must find our meaning grounded in the physical substrate that makes subjectivity possible. Might there be a connection, a real connection? Might the big historian like to take on this knotty problem?

10 Quantum Contingency, Human Freedom, and Cosmic Meaning

As we turn to my second hypothesis, we may find a way to link subjective meaning with the wider physical world within which our human subjectivity is located.²² This would not be possible if we were to restrict ourselves to a mechanistic or deterministic or closed causal nexus model of the universe; because this model precludes the possibility of contingency and freedom at the level of assumption. Might there be a more open model? Yes, there is. It is the quantum model. With this model, contingency along with related phenomena such as randomness, chance, and choice are built right in to the material substrate. Might the quantum model illuminate the story of nature described by big historians?

To explore this, we will have to take a brief look at what is at stake in two fundamental physical realities: quantum physics and Big Bang cosmology. Here is my second hypothesis: indeterminism at the quantum level of physical activity combined with the fine tuning of the initial conditions at the Big Bang establish that contingency belongs inherently to the physical make-up of the universe. With contingency the physical world readies itself for the emergence of consciousness, free will, and the construction of meaningful narrative.

²² Much of this material was developed during my participation in the SATURN (“Scientific and Theological Understandings of Randomness in Nature”) research project, Center for Theology and the Natural Sciences, 2014.

The human mind emerges from a prior contingent physicality; but the human mind is not reducible to that physical substrate.

Let's dig down into the quantum world to test this surmise. Quantum physics tells us what is going on every moment. Every moment in every atom that makes up the universe and makes up each of our bodies, there is activity. And this activity includes maintenance of continuity, to be sure; but it also includes random or unpredictable activity. Individual electron movement is unpredictable, even if statistically electron groups may be predictable. The field of quantum physics provides us with an a-historical or non-historical description of physical processes that include contingency.

That's quantum physics. What about Big Bang cosmology? Big Bang cosmology provides us with a single historical event that includes a brutal and mysterious contingency, namely, the Big Bang's initial conditions. The initial conditions at the Big Bang were specific. The initial conditions could have been different; but our universe is the product of a contingent set of physical conditions at the decisive historical moment, at the beginning of time, denoted $t = 0$. All of nature for the last 13.8 billion years is reeling in continuity with this original contingent situation. Therefore, my second hypothesis relies on contingency at both the ahistorical (present) and historical (past) levels of physical activity.

With the term *contingency*, I am referring here to two phenomena. The first is indeterminism along with the observer-observed interaction at the sub-atomic level. The second is the set of initial conditions at the Big Bang, a set of conditions that could have been otherwise. Both forms of contingency are relevant for the problem within Big History we are seeking to solve.

11 Subjectivity at the Quantum Level

First, quantum physics. Actually, the quantum model is the sum of two sub-models: one is wave-particle duality and the other is indeterminism. According to the wave-particle duality sub-model, the means of measurement influences what gets measured. To think of an electron as a particle and to test for the path of a particle yields one kind of knowledge. To think of an electron as a wave and test for the wave yields another kind of knowledge. Both forms of experiment yield data. Yet, one is not reducible to the other. In sharp contrast to the third person spectator epistemology of Newtonian or classical mechanics, the wave-particle duality submodel reveals indubitably that the method of the observer influences what gets observed. The subjectivity of the observer

participates in the data that get reported from the observation.²³ Each sub-model illuminates one or another aspect of the electron, but not both. The two submodels are mutually exclusive; but they both work.

Copenhagen physicist Niels Bohr called this the *Principle of Complementarity*. Both the wave idea and the particle idea provide realistic knowledge about the physical world. The import of the complementarity principle is that the isolation of the objective from the subjective presupposed in Newtonian science cannot apply to quantum phenomena. The spectator is now on stage with the show. Subjectivity has become integral to the science of physics.²⁴

This shift to incorporate subjectivity into science is vividly illustrated in the debate between Bohr and Einstein, wherein Bohr represents the post-modern shift and Einstein a retreat into restricted objectivity. When Bohr presents the principle complementarity, he philosophizes that “In our description of nature the purpose is not to disclose the real essence of phenomena but only to track down as far as possible relations between the multifold aspects of our experience.”²⁵ In a sense, it is our experience which science must explain, not the object of our experience. This experience is constituted by both the observer and what gets observed, by both the subject and the object in a single moment of interdependence.

23 If we refer to this as the *measurement problem*, we would lighten the impact of saying that subjectivity itself influences objective reality. To say that the subjectivity of the observer actually affects what gets measured would constitute only one of several interpretations of the way that the data arise and reflect wave-particle duality. I am wielding the heavier interpretive hand here in order to explore the possibility of grounding our human experience of subjectivity in the physical substrate that may through evolution have given rise to it.

24 “Life and mind are the *products* of the universe,” writes Paul Davies; “So there is a logical as well as a temporal loop here. . . . Thus, the universe explains observers, and observers explain the universe.” Davies, *Goldilocks Enigma*, 249.

25 Niels Bohr, *Atomic Physics and Human Knowledge* (Cambridge, UK: Cambridge University Press, 1934), 18. “The key point, in the context of the mind-brain problem is that this most orthodox interpretation of quantum theory brings the experiences of the human observers into the basic physical theory on at least a co-equal basis with the physical or matter-like aspects of the description: the matter-like aspects give only half of the dynamical and ontological story.” Henry P. Stapp, “The Hard Problem: A Quantum Approach” in *Explaining Consciousness—The Hard Problem*, ed. Jonathan Shear (Cambridge, MA: MIT Press, 1997), 200.

Einstein, in contrast, held that “Physics is an attempt conceptually to grasp reality as it is thought independently of its being observed.”²⁶ We see here an opening in Bohr that is absent in Einstein. Because subjective human consciousness is the locus of human experience, what happens in subjectivity counts for Bohr. Might it also count for a big historian concerned about big history when looking through a scientific lens? Should the unavoidable subjectivity of the big historian be made transparent? This is a methodological question. Now, let’s attend to what we have learned from quantum physics itself about the role of contingency in our physical world.

12 Indeterminism at the Quantum Level

At this point, we must deal with the perpetual question of determinism vs. indeterminism. What *indeterminism* refers to in subatomic physics is that measurements take the form of probability statistics rather than measuring law-governed individual particles. A physicist can predict when half of a large group of radioactive atoms will have decayed, for example, but he or she cannot predict when a particular atom will decay. Predictions apply only to ensembles of particles, not to individual atomic activity. Despite experiment after experiment, no law governing the activity of individual particles has been discovered. Only particles measured in quantities or ensembles are subject to measurement and predictability. This leads physicists to ask a philosophical question: is nature at this most fundamental physical level indeterministic? The philosophical question arises naturally out of the data. Similarly, existential questions regarding origin, meaning, and destiny arise out of the data.

More measurement enigmas plague subatomic physics. The Heisenberg Uncertainty Principle reflects one such enigma: the more accurately one determines the position of an electron, the less accurately one can determine its momentum, and vice versa. Again we must ask: is nature at this most fundamental physical level indeterministic? Is nature at this most fundamental level inseparable from the subjective gaze that studies it?

To this question we may give three different answers, each relatively plausible.²⁷ (1) What appears to be uncertainty is due simply to temporary ignorance on the part of the scientific community; at some point in the future

26 Albert Einstein, *Albert Einstein: Philosopher-Scientist*, ed. P. A. Schilpp (New York: Tudor, 1951), 81.

27 This analysis relies on the work of Ian G. Barbour, *Religion and Science: Historical and Contemporary Issues* (New York: Harper, 1997), 166–75.

researchers will discover the underlying laws and we can return to the determined universe of Newtonian mechanics. Albert Einstein and David Bohm, among others, elected this first option.²⁸ (2) Uncertainty may be attributed to inherent experimental or conceptual limitations, meaning that what goes on inside the atom will forever be inaccessible to us. In the early days of quantum physics, Heisenberg was tempted to elect this option; but later he converted to the third position. (3) Uncertainty is a product of ontological indeterminacy in nature—that is, alternative potentialities actually exist within the atomic realm. Following the later Heisenberg and Bohr, Barbour avers that “the future is not simply unknown, it is not decided. More than one alternative is open and there is some opportunity for unpredictable novelty. Time involves a unique historicity and unrepeatability.”²⁹

The fact that the path of an individual electron is unpredictable leads to the growing belief among physicists that nature at its most fundamental level is indeterminate. The indeterminate assessment is the dominant one, to be sure; but some physicists are reluctant to concede that nature could function with randomness or chance built into the mechanism. Despite this disagreement at the level of interpretation, all parties must deal with exactly the same data. No one disagrees on one point: at the level of data it appears that subatomic particle activity can be described in terms of random or chance events, making the results contingent and unpredictable.

Although I said earlier that this paper deals primarily with the question of meaning, let's take a brief detour into the question of God. The question of God is raised implicitly by our knowledge of quantum physical activity. My Berkeley colleague, physicist and theologian Robert John Russell, supports the indeterministic interpretation of quantum theory and, thereby, proclaims that contingency lies in the fundamental physics of all material reality. He further contends that without contingency at the physical level we

28 “The great initial success of quantum theory cannot convert me to believe in that fundamental game of dice. . . . I am absolutely convinced that one will eventually arrive at a theory in which the objects connected by laws are not probabilities but conceived facts.” A letter of Albert Einstein cited in Max Born, *Natural Philosophy of Cause and Chance* (Oxford, UK: Oxford University Press, 1949), 122; quoted by Barbour, *Religion and Science*, 171.

29 Barbour, *Religion and Science*, 175. Some physicists adopt a philosophical position commonly known as idealism. Eugene Wigner contends that quantum results are fixed only when they enter somebody's consciousness. John Wheeler contends that we live in an observer-created universe. Barbour is a critical realist; so he resists these attempts to reduce objective reality to subjective construction. *Ibid.*, 185–86.

could not experience freedom at the human level. I find his arguments at minimum plausible, perhaps even persuasive.

Ontological indeterminism is the way Russell describes the most fundamental level of physical reality we know. "By ontological indeterminism I mean the philosophical interpretation of nature according to which there may not always be an efficient physical cause for every effect."³⁰ Russell's ontological indeterminism would find support among others who make the indeterministic interpretation of quantum activity.

Atoms may be small, but they're everywhere, says Russell frequently. The human body with all of its cells must still answer to the electron. Quantum indeterminism does not refer just to what's over there. It's right here. It's in us. It is us. There is a dimension of our physical and biological and hence psychological reality that benefits from this indeterminism. "In many biological systems individual microevents can have macroconsequences," says Barbour; "One mutation in a single component of a genetic sequence can change evolutionary history. In the nervous system and the brain, a microevent can trigger the firing of a neuron whose affects are amplified by the neural network."³¹

Quantum physical indeterminacy makes possible the openness of near future events. It makes alternatives possible so that we may select one but reject another. It provides potentials, some of which we may actualize while leaving others unactualized. In short, it opens physical reality to make freedom, decision, choice, self-determination, and, most pertinently, history possible.³² Underlying quantum physical indeterminacy is a necessary—though not a sufficient—condition for the appearance at the biological level of subjectivity and, in turn, the meaning of history.³³

30 Robert John Russell, *Cosmology from Alpha to Omega: The Creative Mutual Interaction of Theology and Science* (Minneapolis: Fortress Press, 2008), 120.

31 Barbour, *Religion and Science*, 186. "Life as we observe it today is 1 percent physics and 99 percent history." Davies, *Goldilocks Enigma*, 233.

32 Quantum indeterminism does not all by itself establish human freedom; but it marks the transition from the deterministic world of Newton to a view of nature more welcoming to freedom. "Clearly we cannot identify freedom with randomness. Within physics, the only alternatives are determinate cause and indeterminate chance, and neither can be equated with freedom. But several physicists have asserted that whereas Newtonian determinism excluded human freedom, quantum indeterminacy at least allows for it." Barbour, *Religion and Science*, 187.

33 Brain researchers avoid reducing new properties emerging at the biological level to their underlying influence at the physical level. "... to date, quantum interactions do not seem to bear robustly on the issue of consciousness 'as such.' The biological basis of consciousness has been acknowledged as one of the fundamental unsolved questions in science.

History is constituted by a sequence of previously underdetermined or contingent events (remembered events in the case of human history).³⁴ Had all events been previously and exhaustively predetermined, all we would see in nature is a machine, an uninterrupted machine. But, because events are underdetermined and contingent, we must witness them after the fact in order to know what has happened. Without contingency, there would be no story to tell. Without subjectivity, there would be no one to tell it.

13 **The Anthropic Principle: Was the Big Bang Finely Tuned for the Evolution of Intelligent Life?**

This brings us to contingency in a second sense, namely, the Goldilocks circumstances (not too hot, not too cold, but just right!) of big history's initial conditions. Here we take into consideration the Anthropic Principle, a dramatic interpretation of the fact that our universe is finely tuned for the evolution of life. When the Big Bang banged some 13.8 billion years ago, it started from somewhere.³⁵ That somewhere we can identify as its initial conditions,

The weight of evidence indicates that it is a major biological adaptation. We therefore need to understand its evolutionary, developmental, and experience-dependent foundations in the brain." Bernard G. Baars and David B. Edelman, "Consciousness, Biology and Quantum Hypotheses," *Physics of Life Reviews* (10 July 2012), 285–94; www.elsevier.com/locate/plrev. In order to pursue the emergence of human subjectivity one must pursue history, history in the form of evolutionary history. The study of physics in abstraction from evolutionary history will not suffice.

34 "Contingencies may be accidents, chance events, misadventures, exceptions to the rule, freaks, unexpected or improbable, unpredictable, unique, or bizarre. Although all events are caused—in the sense that they do not pop into existence out of nowhere—we may not know which initial conditions or causes will operate at any one time." Kurtz, *Turbulent Universe*, 114.

35 It is difficult for cosmologists to examine directly the Big Bang at its very beginning, at $t = 0$. This is due to inflation taking place within that first second. Alan Guth of MIT had introduced the concept of inflation in 1980; subsequent experiments seem to be confirming this idea. As recently as March 2014, a South Pole experiment known as BICEP2 (Background Imaging of Cosmic Extragalactic Polarization) established traces of primordial gravitational waves that might tell us how and when the "early universe went through its precipitous expansion." Clara Moskowitz, "Our Inflated Universe," *Scientific American* 310 (May 2014): 14. What's behind the inflation? The singularity? What's behind the singularity? Some are proposing that what became the singularity at the Big Bang in our universe is a previous universe, a parent universe which collapsed into a black hole. We can't see this parent universe, because its light is blocked by the event horizon of

the original parameters that structure the universe. What is so significant here is that these initial conditions did not have to be what they were. They could have been otherwise. They were themselves contingent. Had even the slightest change in one of numerous initial conditions been different, then the history of the universe would have been different and unable to support the evolution of life, intelligence, mind, and civilization. In other words, even the most modest turn of even one dial on the Big Bang control panel would have meant that we would not be here to study the Big Bang.

Try this for an example. If gravity had been stronger or weaker by 1 part in 10^{30} , then life-sustaining stars like the sun could not exist, making life impossible. Or, try this one. If the initial explosion of the Big Bang had differed in strength by as little as 1 part in 10^{66} , the universe would have either collapsed or expanded too rapidly for stars to form. In either case, life would be impossible. Here's another one. If the mass of neutrinos were 5×10^{-34} kg instead of 5×10^{-35} kg, then the additional gravitational mass would have resulted in a contracting rather than an expanding universe, making life impossible. This list of "accidents" or "convenient coincidences" goes on and on.³⁶

"If gravity were stronger, stars would burn faster and die younger . . . If electromagnetism were stronger, the electrical repulsion between protons would be greater, threatening the stability of atomic nuclei," speculates Paul Davies,³⁷ who also compares the mass of neutrons with other particles. The ratio of the mass of the neutron to the proton gives us a rather tiny number: 1.0013784170. Yet, this tiny fraction makes the difference between life and no life. "The fact

that black hole. Even though this postulation "resolves one giant question—the origin of our universe—it simultaneously raises a new set of mysteries. Foremost, among them, where did our universe's *parent* universe come from?" Niayesh Afshordi, Robert B. Mann, and Razieh Pourhasan, "The Black Hole at the Beginning of Time," *Scientific American* 311 (August 2014): 43.

36 Martin Rees' widely cited approach focused on six constants that support the Anthropic Principle:

- $N \approx 10^{36}$, the ratio of the fine structure constant to the gravitational coupling constant;
- $\varepsilon \approx 0.007$, the strength of the force binding nucleons into nuclei;
- $\omega \approx 0.3$, the ratio of the actual density of matter in the universe to a critical density for which the universe would collapse under gravitation;
- $\lambda \approx 0.7$, the ratio of the energy density of the universe to a critical density;
- $Q \approx 10^{-5}$, the ratio of the gravitational energy required to pull a large galaxy apart to the energy equivalent of its mass;
- $D \approx 3$, the number of macroscopic spatial dimensions in space-time.

Martin Rees, *Just Six Number* (New York: HarperCollins Publishers, 1999).

37 Davies, *Goldilocks Enigma*, 143.

that the neutron's mass is coincidentally just a little bit more than the combined mass of the proton, electron, and neutrino is what enables free neutrons to decay. If the neutron were even *very* slightly lighter, it could not decay without an energy input of some sort . . . with disastrous consequences for life."³⁸ Princeton physicist Freeman Dyson is remembered widely for having opined, "As we look out into the universe and identify the many accidents of physics and astronomy that have worked together to our benefit, it almost seems as if the universe must in some sense have known we were coming."³⁹

This looks like design. But, if we remain strictly within the canons of science, the most we can say is that the initial conditions were contingent—that is, the initial conditions were a lucky accident that made our particular natural history possible and the evolution of life possible. Further, it provides the empirical data that give rise to the metaphysical question of teleology. Was our universe designed with a purpose built in?

14 The Battle over Design

As we have seen, big historians bet their ontological cash on an underlying evolutionary force, a force that allegedly propels both natural and human history toward increasing complexity. This force is not recognized by our physicists; yet it plays a decisive role in the BH reconstruction of nature's history. Even if we should grant credibility to the BH construction, reliance on this evolutionary force could not explain how we should interpret the issues raging over the Anthropic Principle. For engaged scientists and the philosophers of science, the debate is over design.

No! trumpet some scientists. No design is possible. No teleology or direction or meaning is allowed inside the cosmological door of science. This no-trespassing sign would exclude the evolutionary force favored by big historians as well.

38 Ibid., 145. The concept of the Anthropic Principle has been developed by Brandon Carter, "Large Number Coincidences and the Anthropic Principle in Cosmology," in *Confrontation of Cosmological Theories with Observational Data*, IAU Symposia No. 63, ed. M. S. Longair (Dordrecht, Netherlands: Reidel, 1974); and by John Barrow and Frank J. Tipler, *The Anthropic Cosmological Principles* (Oxford: Oxford University Press, 1986). Actually, there are multiple variants. The Strong Anthropic Principle or SAP holds that the initial conditions require that life eventually evolve. The Weak Anthropic Principle or WAP holds that the initial conditions merely make it possible for life to eventually evolve. Davies embraces WAP but not SAP.

39 Freeman Dyson, *Disturbing the Universe* (New York: Harper, 1979), 250.

There must be another explanation, a scientific explanation that would eliminate design, teleology, direction, purpose, and meaning. What could that be? Answer: M Theory or multiverse theory. The disciples of determinism will not give up easily.

Before we proceed with M Theory, let me point again to the map so we can see where we're going. The data regarding the early universe inherently raises existential questions, even the question of God. Research cosmologists can see the question of God rising from the mist of accumulated data. Because of ideological commitments such as naturalism or even atheism, some scientists actually alter their theories in order to exclude God. Yes, anti-theological commitments can actually influence the direction that scientific theorizing takes. We are about to follow the road toward this destination.

Templeton laureate physicist and cosmologist Martin Rees makes the logic of M Theory transparent. Faced with the facts describing the role of the Anthropic Principle in making our biophilic universe, Rees offers three parallel interpretations of the data. First, the data describing the initial conditions, no matter how astounding, are merely a matter of happenstance. Second, the universe was designed by God so that God's providential plan for life, mind, and spiritual community could be fulfilled. Third, the multiverse. Which of these three alternatives makes the most scientific sense? Rees says he finds the first option unreasonable; happenstance is not an adequate explanation. The second one is unnecessarily religious; because the appearance of design in nature implies a transcendent designer. So, he opts for the third. "We can conjecture that our universe is a specially favored domain in a still vaster multiverse."⁴⁰

Note the logic here. The postulation of multiple universes is based upon a philosophical assumption that denies the finality of contingent events for defining nature (and it denies the influence of a transcendent factor). From where does the assumption come that requires this logic? Curiously, theology. This contemporary *a priori* assumption is built on a medieval theological axiom: the principle of plenitude. Basically, the principle of plenitude says that every potential becomes actualized. Translated into contemporary physical cosmology, the resulting multiverse hypothesis posits that all mathematically possible universes become actualized. Oddly, a medieval theological axiom has been dusted off and silently invoked in secular circles to support M Theory. The dramatic contingency displayed by the Anthropic Principle is flatly rejected;

40 Martin J. Rees, "Living in a Multiverse," in *The Far Future Universe: Eschatology from a Cosmic Perspective*, ed. George F. R. Ellis (Philadelphia: Templeton Foundation Press, 2002), 66. Rees honestly believes there exists evidence for the multiverse.

and the rejecting scientist discretely invokes a long outdated theological principle to justify its rejection, namely, every potential gets actualized.

The principle of contingency, in contrast, assumes that some potentials become actualized but others do not. If one desires to postulate determinism to describe reality, then contingency must be eschewed and something like the principle of plenitude invoked. This provides the basis for the theory of multiple universes or M Theory. Because each potential pathway of a subatomic particle is taken, and because only one of these paths is taken in our universe, it follows that there must exist other universes where the other potentials are actualized. The collection of all of these universes could be called the *multiverse*. As one might imagine, this number of universes within the multiverse would be very large.

M theorists believe they are assembling evidence for the multiverse idea, even if as yet their argument has not proven broadly persuasive. What I observe is how postulating the existence of multiple universes brings comfort to an anxious determinist wringing his or her hands over the Anthropic Principle. By dumping our universe into a larger mechanistic box of many universes, our own universe loses its remarkable status. All that remains is for M theorists to prove this idea by mustering more data as supporting evidence. While waiting for this supporting data, both determinists and indeterminists can enjoy the daily life they live as free beings within this particular biophilic universe.

15 M-Theory and Anti-Theology

Cambridge physicist Stephen Hawking enthusiastically embraces M-Theory; and in doing so he vividly illustrates the decisive role assumptions can play in scientific theorizing. We might ask: just what is M-Theory? “No one seems to know what the ‘M’ stands for,” writes Hawking; “but it may be ‘master’, ‘miracle’, or ‘mystery’. It seems to be all three.”⁴¹ After this apparent nonsense he proceeds to assert that “The Laws of M-Theory therefore allow for *different universes* with different apparent laws.”⁴²

Why postulate the existence of more universes than just the universe we can see, our universe? It has to do with Hawking’s defense of determinism and defense against divine design. Hawking advocates what he calls *scientific determinism* this way: “Given the state of the universe at one time, a complete

41 Stephen Hawking and Leonard Mlodinow, *The Grand Design* (New York: Bantam, 2010), 117.

42 Ibid., 118.

set of laws fully determines both the future and the past. This would exclude the possibility of miracles or an active role for God. . . . A scientific law is not a scientific law if it holds only when some supernatural being decides not to intervene.”⁴³ The cosmic determinism espoused by Hawking applies to the earliest Big Bang universe as well as to everyday mental activity. It derives not from scientific evidence but rather from Hawking’s theology or, better said, anti-theology. Must such a deterministic interpretation of physics reign unchallenged?

We can challenge Hawking’s determinism by acknowledging the finality of chance, randomness, and unpredictability—that is, contingency. According to George Ellis—mathematician, cosmologist, and co-author with Hawking in scientific research—we live in an underdetermined world.⁴⁴ “Irreducible randomness occurs in physics at the quantum level, thereby influencing cosmology and the existence of life on Earth. If it were not for this randomness, we would be stuck in the vice of determinism and outcomes would be limited and uninteresting. But it is there, as part of the design of the universe.”⁴⁵ Randomness, says Ellis, insures that the physical universe escapes the vice grip of a total determinism.

For Ellis, three kinds of causation characterize the universe in its micro and macro scope: necessity, purpose, and chance. Necessity “has an inexorable impersonal quality. It is the heart of physics and chemistry. It can be successfully described by mathematical equations.” Purpose, on the other hand, “is the core of human being, as well indeed of all life. All living entities embody some kind of purpose or function in their structure and actions.” Note that for Ellis purposeful movement is something we humans share with other living entities. Finally, chance

embodies the idea of randomness, implying a lack of purpose or meaning. Things just happen that way, not because it’s inevitable, but because it’s possible, and maybe probable. It is prevalent in the real universe because of the large number of unrelated causes that influence events, and in particular because of the vast numbers of micro-events that

43 Ibid., 30.

44 George F. R. Ellis and Stephen S. Hawking, *The Large Scale Structure of Space-Time* (Cambridge, UK: Cambridge University Press, 1973).

45 George F. R. Ellis, “Necessity, Purpose, and Chance: The Role of Randomness and Indeterminism in Nature from Complex Macroscopic Systems to Relativistic Cosmology,” unpublished SATURN paper at The Center for Theology and the Natural Sciences, Berkeley, California, 2014; www.ctns.org.

underlie all macroscopic outcomes. All three kinds of causation occur in an intricate interplay in the real universe.⁴⁶

What happens at the quantum level and what happened at the Big Bang both prepare the physical stage for the drama of meaning in our experience of subjectivity. Ellis writes, "There is much evidence that molecular machinery in biology is designed to use that randomness to attain its desired results. . . . This is true also in terms of macro levels of behavior, and in particular as regards how the brain functions. . . . Randomness is harnessed through the process of adaptive selection, which allows higher levels of order and meaning to emerge. It is then a virtue, not a vice; it allows purpose to be an active agent by selecting desired outcomes from a range of possibilities."⁴⁷ In sum, selected outcomes by a thinking self take advantage of quantum randomness; and the thinking self is thereby prepared to interpret meaning at the subjective level.

Why are we going back to the Big Bang or to sub-atomic physics to look for contingency? Because physical contingency is a precursor to human subjectivity, consciousness, free will and, hence, the interpretation of meaning in history. To deny physical contingency provides the grounds for denying the existence of what appears as human subjectivity. Denying contingency at the physical level turns freedom at the human level into an illusion, at least according to Hawking.

The molecular basis of biology shows that biological processes are governed by the laws of physics and chemistry and therefore are as determined as the orbits of the planets. Recent experiments in neuroscience support the view that it is our physical brain, following the known laws of science, that determines our actions, and not some agency that exists outside those laws. . . . It is hard to imagine how free will can operate if our behavior is determined by physical law, so it seems that we are no more than biological machines and that free will is just an illusion.⁴⁸

Hawking here wants to appeal to physical or chemical laws which pre-determine what an individual human subjectivity would decide, thereby making self-determination into an illusion. What is hard for Hawking to imagine is that there exists such a thing as subjectivity, a human self, an act of self-determination. Even though it is hard for Hawking to imagine, this is

46 Ibid.

47 Ibid.

48 Hawking and Mlodinow, *Grand Design*, 32.

what we experience every day as an indisputable datum within our subjective apperception of reality.

Now, let me stress one caveat. Finding that the physical world both in the past and in the present is replete with some level of contingency does not suffice to explain the existence of human consciousness satiated with freedom and its product, human meaning. Contingency in the physical world is a necessary condition for free will; but it is not a sufficient condition. I am unable to trace the steps from subatomic indeterminate electron movement up to the biosphere and then up to mind and then up to our daily subjective experience. What I hope to have shown, however, is that what we know as subjectivity is grounded in the fundamental physical processes of our natural and historical world. This should place the big historian in a position to acknowledge that telling the story of our universe is itself the product of somebody's subjectivity, even if the story is told from the scientific gaze. The scientific gaze could be enriched by reflection—a bouncing back, so to speak—upon the inherent relationship between contingent natural events and the subjectivity of human storytellers.

16 Conclusion

We opened this paper by posing existential questions: (1) Who are we? (2) Who is God? and (3) What is the meaning of life? These questions rise up naturally out of our study of big history. Unfortunately, the teachers of Big History do not entertain such questions. This is because of their a priori commitment to a version of naturalism, Universal Darwinism. Accordingly, only natural explanations count, not supra-natural explanations. Curiously, answers arising out of human subjective consciousness do not count either, because when Big History looks at big history it looks only for objective factors that confirm its ontology, namely, an evolutionary force driving toward complexity. Questions regarding God, creation, and meaning become unaskable.

Pathetically and incoherently, big historians ask questions dripping with human meaning. Here's one:

Does Big History provide a narrative that can help nurture the development of the empathy and cooperation that are part of our social nature? Can humans form a more perfect human community as we continue to create a more complex society than has existed before? Or will our current levels of social complexity face inexorable demise?⁴⁹

49 Big History Association, <http://www.ibhanet.org/>, accessed 3/25/2014.

To speak to such a question, we must ask: what's going on within human subjectivity? To provide a narrative or story that is meaningful to the present generation—and meaningful in such a way as to inspire moral resolve to make “a more perfect human community”—will require an appeal to purpose, direction, and personal meaning. It must ask subjectivity to play an influential role in the telling of nature's story.

The implications of the above discussion for BH are two. First, with regard to nature's prehistory from the Big Bang through evolution to the present, big historians need to stress contingency. Nature's history could have been different. At past forks in the road, our road was taken. At least retrospectively we ask: what could this mean? Second, the physical history of nature now includes the human history of subjectivity. What could this mean? What could it mean for the future of our planet and for our universe?

As I have tried to show, what we know as purpose or meaning belongs to subjectivity. It appears that meaning arises, at least phenomenologically speaking, when the deliberating self selects some potentials and deselects others. Such selection is requisite for decision-making; and decision-making is likely to be the result of a mental measuring process. Within this deliberative process, options are measured according to a scale of values. Some choices look better than others. Once a sequence of decisions and actions become a history—an autobiographical history—a pattern of meaning and a projected purpose become integral to our consciousness. Without my specifying which values should be invoked or what anyone's envisioned purpose should look like, I only wish to point out how selection between alternative possibilities is integral to the meaning-making phenomenon. The possibility that we find ourselves with options to select from is due to contingency built into nature's particular physical history.

But, the constitutive significance of physical contingency is a matter of dispute among our best scientists. Without a resolution at the level of science, Big History as a discipline will be like an airplane trying to take off without a runway. Stephen Hawking provides a case in point. Hawking can imagine the human mind as a “machine and that free will is just an illusion.” What he cannot imagine is the existence of a subjective self. Despite Hawking's inability to imagine it, there is indeed a self.⁵⁰ I grant that what we call *self* is a process

50 At minimum, we must grant that the human self is an emergent property, a property made possible at the Big Bang but a property that could arise only because of contingencies in the material world. “Tracking how brain cells compute . . . subjective experience or perceptions of the outside world . . . requires moving from measuring one neuron to gaining an understanding of how a collection of these cells can engage in complex interactions that give rise to a larger integral whole—what scientists call an emergent property.”

and not a fixed entity, to be sure. Yet, this self—your self and my self—take causative actions which have effects on the physical world, and on the history of the physical world.

Contrary to what Hawking surmised, we cannot reduce the self to neuronal firings in the brain or demonstrate that what appears to be the self is in fact a mere effect of predetermining physical causes. Jennifer Ouellette studied the latest findings in neuroscience, and in her judgment science does not explain away the human self. “So the conscious self isn’t located in any particular part of the brain; rather, it is what’s known as an emergent phenomenon.”⁵¹ Given that the self is a process always in motion, so to speak; what distinguishes oneself from another is its particular history. A self is a biography, a story, a narrative. As a story, the human self has a past it remembers and a future it anticipates. The meaning of the present moment is determined by its context in the larger text, the total story. “Do you really want to know who I am?” she asks. “Let me tell you a story.”⁵²

The upshot of all this is that human subjectivity replete with meaning and purpose ought not be considered alien to nature’s history. Pre-human nature and human nature belong together in a single story, so to speak. “Nature also includes human beings and their villages, towns, and cities, countries, and constitutions; and it includes cultural changes that are a result of human dreams and aspirations,” contends skeptic Paul Kurtz.⁵³ The story Big History tells should put human subjectivity into it, a task which has been partially accomplished. To date, the history of human civilization is included, beginning with “The Sixth Threshold” and continuing right into Earth’s future.⁵⁴ What is already established within Big History is the inclusion of human history from the objective perspective. What is needed next—if history is to exhibit a *telos*—is a turn to subjectivity.

Perhaps the easiest door into subjectivity would be to include within BH the history of human origin stories. We must deal with multiple histories here, of course, because we must deal with multiple myths of origin, multiple etiological narratives, multiple accounts of beginnings that archaic cultures found meaningful. And, we may include in this list the new origin story devised by

Rafael Yuste and George M. Church, “The New Century of the Brain,” *Scientific American* 310, 3 (March 2014): 41.

51 Jennifer Ouellette, *Me, Myself, and Why: Searching for the Science of Self* (New York: Penguin, 2014), 244.

52 Ibid., 282.

53 Kurtz, *Turbulent Universe*, 104.

54 Christian, et.al., *Big History*, Chapter 4.

big historians as one more example of human subjectivity at work. Then, we should submit all origin stories to critical analysis from phenomenological, philosophical, and scientific perspectives. Ask: what is going on in the evolving human mind with regard to retrieving, if not reconstructing, a narrative of our origin? With such a method the subjectivity of the big historian would be included right along with the subject matter of Big History itself.

Included in any collection of origin stories will be testimonies to the creative power of the divine. Many mythical accounts of origin right along with the Bible's Genesis admit what seems so reasonable to the human mind: the existence of this physical universe cannot by itself account for itself. Only appeal to a transcendent creator is intellectually satisfying.

Or, to say it another way, the cosmological story told by our scientists cannot help but give rise to the question of God. Questions swirling around the Anthropic Principle make this abundantly clear. Big historians, however, forbid the asking of the question of God due to their a priori commitments to naturalism, to scientism. Right along with the God question, big historians also exclude questions of purpose and meaning. It will be up to the theologians to dig around in big history so that these questions can be uncovered, exposed, and asked.

Big History, Scientific Naturalism, and Christian Hope

John F. Haught

Shatter, my God, through the daring of your revelation the childishly timid outlook that can conceive of nothing greater or more vital in the world than the pitiable perfection of our human organism.

*Jesuit paleontologist Pierre Teilhard de Chardin*¹

Your promise, O Lord, is wider than the heavens.

PS 138:2, New English Bible

A major task of Christian theology today is to discern whether it is possible to connect what science is telling us about the universe to our hope for the future fulfillment of all things. The new emphasis on Big History by David Christian and others invites us to place this conversation of science and theology in a fresh setting.² The new scientific cosmic story allows us to connect the thought-world of the natural sciences meaningfully to the Christian understanding of a God who not only creates and sustains but also continually renews the world. The cosmic story represented by the thirty volumes that Alan Culpepper depicts in his essay (earlier in this volume) may turn out in the long run to be only the dawn of creation. And, just as the Apostle Paul widened his Christo-centric vision by eventually including all of creation within the scope of redemption, Christian reflection today must ask whether we may extend our hope far and wide enough to embrace the entire universe that is now being opened up by the natural sciences.

After Darwin, Hubble, Einstein, and Hawking cosmic boundaries have expanded unimaginably. The newly discovered immensity of time and space appears now to swallow up our narrowly human images of God. The anthropomorphic, one-planet deity (as astronomer Harlow Shapely referred to the God of Western theism) often seems, at least at first, too small for large minds. For many scientifically educated people today contemplation of the universe has

1 Pierre Teilhard de Chardin, "The Mass on the World," in Thomas M. King, *Teilhard's Mass: Approaches to "The Mass on the World"* (New York: Paulist Press, 2005), 150.

2 David Christian, *Maps of Time: An Introduction to Big History* (Berkeley: University of California Press, 2004).

become more spiritually satisfying than participating in official religious ceremonies. Even though educated seekers usually consider the universe revealed by science to be pointless and impersonal, its enormous scale and detail are enough to evoke in them a sense of awe that swells their souls even as it elevates their minds.

Meanwhile most Christian educators and officials continue to ignore the universe of science as essentially irrelevant to faith. For them what matters most, religiously speaking, is the human domain, whether public or private. Concern about the cosmos and its future seems irrelevant in comparison with the question of personal destiny. Christians in general are mostly uninformed about cosmology and biological evolution. Some educated believers may have a vague sense that the universe began around 14 billion years ago and that life has evolved by Darwinian processes, but for the most part theologians, pastors, and religious instructors are not interested in connecting their faith to the natural world.

To an increasing number of secular and science-minded spiritual pilgrims, by contrast, the “epic of evolution” responds to the need for a wide-open space in which to explore questions about the meaning of their lives. Devotion to a God who is concerned only with human history is too provincial to evoke the fullness of worship. For an increasing number of secular thinkers the great mystery, and the greatest story of all, is that of the universe itself with its ever-expanding boundaries.³ The new scientific cosmic story provides a new “evidence-based” cosmic setting for their religious naturalism. The universe story then becomes the new creation myth, one that opens out far beyond the culturally conditioned narratives of the Bible.⁴ In the light of Big History, our ancient religious narratives get pushed into the background, where they are in danger of eventually being forgotten altogether.

Nevertheless, I want to argue here that the recent arrival and flourishing of the new story of the universe, instead of diminishing reasons for Christian faith and hope in a personal, infinitely generous, and promising God, offers an opportunity for a new theological appreciation of the divine infinity and personality that most Christian thinkers and officials have so far failed to acknowledge. According to the inner logic of even the most traditional forms of theism, after all, the ultimate source of “all things visible and invisible,” is held to be an *infinite* God. So by anyone’s mathematics this has to mean that God, if God

3 For example, Chet Raymo, *Skeptics and True Believers: The Exhilarating Connection Between Science and Religion* (New York: Walker and Company, 1998).

4 Loyal Rue, *Everybody's Story: Wising Up to the Epic of Evolution* (New York: Oxford University Press, 1994).

exists, is by definition unsurpassable by any conceivable physical universe, no matter how extravagantly proportioned the latter may be. Furthermore, since Christian faith understands God as endlessly resourceful and *personal* self-giving love, God can never be outsized in depth, breadth, being, or beauty by a finite universe that has given rise to human persons. Consequently, Christian theology should never be reluctant to engage evolutionary biology or contemporary cosmology. In principle no immensities or intensities that we counter in everyday experience or in scientific explorations can outreach the largeness and largesse of the God of Christian faith. Consequently, the new cosmic story may now be taken as a sacramental opening to the renewal rather than the relativizing of our sense of the infinity and personality of God.

To be sure, our exhilarating new awareness of Big History—a survey of the world that links human history to its previously undisclosed cosmic and biological prologue—may seem at first to inspire a religious awe more vibrant and comprehensive than that evoked by our classic religious traditions. Still, a theologian is permitted to ask the following questions: Can the fathomless heavens and the epic of evolution speak adequately to the human heart's deepest longings? Can the cosmos, as long as it is held to be essentially impersonal and pointless itself—as it is by a majority of contemporary scientists and philosophers—satisfy the perennial human need for something in which to hope, or be a beacon by which to orient our lives?

A pointless universe, logically speaking, can lead life and human history only toward a tragic finale. Even an unimaginably large cosmos, as long as it is held to be—at bottom—meaningless and impersonal, cannot justify indefinitely the basic human trust without which spiritual longing, moral aspiration, and intellectual vitality will sooner or later flag and fade. An impersonal universe, at least all by itself, cannot provide sufficient inspiration across many human generations to live morally heroic lives or even to cultivate ordinary virtues with sustained motivation. Deep and fascinating though Big History surely is, as long as it seems likely to have no inherent meaning and redemptive goal, it cannot be the ultimate repository of a fully *human* trust. It cannot respond proportionately to the *cor inquietum*, the restless heart and its native capacity for the infinite.

I fear then that devotion to the “new cosmic story” can lend itself to a new kind of literalism as long as it stays too close to the surface of things and avoids close encounter with still untapped depths of nature and history. A universe construed on the basis of natural science alone, in other words, will prove in the end to be spiritually illusory, morally uninspiring, and (as I argue later on in this essay) even intellectually incoherent. Interesting and accurate though it may be, the scientific representation of the cosmic story is still too small for

any being which at heart is *capax infiniti*. Big History is neither extensive nor deep enough to be the *ultimate* context of human existence, moral aspiration, and desire for meaning and truth. I wonder, furthermore, whether any person can bow religiously to an impersonal universe without becoming less of a person in the process.⁵ Human persons, as Paul Tillich correctly pointed out in his famous reply to Einstein—responding to the latter’s advice that religions need to get rid of the idea of a personal God—can be healed only by another person. What we choose to worship, therefore, has to be *at least* personal if it is to attract human persons at the center of their being. God must be a Thou and not an It.⁶

If, ultimately, the ground of my being were less than personal, no matter how impressive it might be in spatial and temporal terms, it cannot reach me at the depth of my being or heal my soul, even if at first sight it appears to offer me unprecedented breathing room.⁷ This is not to deny that an enlivening idea of God includes superpersonal attributes such as infinite being, depth, goodness, beauty, and truth, qualities that open faith up to the expansiveness needed to compensate for our too narrowly anthropomorphic images of deity. Fortunately, however, the vastness of the universe can now function symbolically more than ever before to *amplify* our biblical sense of God in a way that intensifies that most personal of all divine attribute, the capacity to make and keep promises. God, in other words, may now be understood as the One who faithfully and forever opens up a new future not only for Abraham and his descendants but also for the whole universe. An immensity of time and space cannot by itself turn an impersonal universe into a personal one, but science has now shown that over the course of billions of years a cosmos that was at one time devoid of intelligent and ethical organisms eventually gave rise to persons. Evolution has recently brought about beings also endowed with the capacity for making and keeping promises.

From the perspective of theology, then, the emergence of persons during the course of evolutionary time occurs because the universe is itself ultimately grounded in personhood. The *promise* of emergent personhood in the course of cosmic history, we may speculate, is already present at the foundation of all creation in the “word” of promise by which the world is first conceived. If the universe were *essentially* impersonal, then the quest to justify our own sense of personal dignity and the virtue of fidelity would have to lead us away

5 I share this suspicion with the Jesuit geologist and religious thinker, Pierre Teilhard de Chardin, *Writings in Time of War*, trans. René Hague (New York: Harper and Row, 1965), 14–71.

6 Paul Tillich, *Theology of Culture* (New York: Oxford University Press, 1959), 127–32.

7 Ibid.

from the cosmos, into an escapist, dualistic, and world-fleeing mysticism—an excursion that has tempted Christians for two millennia. In the Abrahamic traditions, however, the ground of all being and value is a wellspring of promises, and since only a person can make promises, personality must be a defining feature of creation. There is no reason, moreover, why we cannot take the recently revealed cosmic *immensity* as an extravagant sacramental self-expressions of an infinite divine personal *intensity* and power of renewal. We may then understand God's promise as opening up the universe to a future of ever-new creation, one that has led recently to the creation of persons.

To summarize, the emerging picture of an expanding, still-becoming cosmos seems to me to be logically consistent with its being also the embodiment of a divine promise. Our still unfinished universe, however, cannot be expected to provide here and now unambiguous evidence of perfection. For it is still coming into being and cannot conceivably be complete at present. For this reason I believe the much-debated question of "intelligent design" in nature distracts us from the deeper and more interesting issue of why the universe is a *drama* rather than an aimless series of mechanical states. The universe of contemporary cosmology and biology shows creation to be not so much an exhibit hall for divine designs as a *drama* still playing, a production riddled with contingency and ambiguity but also seeded with promise. Nature is neither completely chaotic nor perfectly ordered. It is still *in via*, but even in its presently unfinished status it may be the carrier of a promise yet to be revealed fully.

If, on the other hand, everything were perfectly clear, completely ordered, or mathematically certain, there would be no opening to the future and hence no need for promise. Neither would there be the boundless openness of the cosmos to surprising new evolutionary outcomes, including human freedom. We currently find ourselves in a cosmos where good is mixed with bad, beauty with banality, and order with disorder. But this cosmos may still have a future. Trusting in a promise cannot magically remove the ambiguity, but it may at least allow us to think of the world's current messiness as more ephemeral than final.

Theologically, therefore, the reconciliation of science with biblical faith today can best be accomplished if we view nature, and not just human history, as a drama permeated with promise. It is nature's promise that allows us to link the new scientific cosmic story with faith's trust that at bottom our universe is personal. Nature, as Darwin reminds us, is not paradise—or at least not yet. Nature has grandeur, but its splendor is vitiated by violence and death. We need not turn our eyes away therefore from the evolutionary suffering that has compelled many noble souls over the last century and a half to despair of there being any "point" or purpose to the universe. Yet even in all its ambiguity the

universe, in its dramatic depths, may be the carrier of a momentous promise. It is not by exhibiting flawless “design,” but by being a drama that carries an original promise, that the cosmos gradually reveals its point or “purpose.”

So we can still affirm cosmic purpose without having to deny the realities of evolutionary struggle, innocent suffering, and moral evil. Those who see the universe as pointless usually do so because of the pain and evil that life on Earth (and possibly elsewhere) has to endure, and of course if suffering were the final word then the absurdist would be correct. But there is no certain evidence that the absurd is or will be the final word, especially since the universe is still coming into being. To claim, here and now, that the universe is pointless—a doctrine that cosmic pessimists take to be “realistic”—may turn out to be completely wrong. Cosmic pessimism, it seems to me, is too perfectionist, impatient, and literalist in its dour assuredness about the way things “really” are.

Even now, after all, the cosmos is not precipitously falling toward its predicted death. In fact, there are many instances in which suffering can be ended, pain conquered, and death forestalled. All present healing events may be both sacraments and anticipations of final healing. Our world is one in which sorrow is mixed with joy, and death with life, but it is not silly to wager that a still unfinished universe is one in which new life may also rise up from death. The cosmos is imperfect, as are our lives within it, but even in this imperfection there is room for hope.

1 Big History and Scientific Naturalism

Even though a promissory understanding of the new cosmic story is compatible with science, however, it is irreconcilable with two closely related, academically endorsed, modern assumptions underlying cosmic pessimism. These beliefs are *scientism* and *scientific naturalism*. They have been so intimately conflated with science that many contemporary intellectuals no longer bother to distinguish them from purely scientific inquiry itself. Scientism is the belief (and I use the word “belief” deliberately) that the objectifying methods of science are the only reliable way to arrive at true understanding of the real world; and scientific naturalism—as I am defining it here—is the belief, rooted in scientism, that reality consists exclusively of what scientific method is in principle capable of discovering and verifying.⁸

8 For a book-length study and critique of scientific naturalism see my book, *Is Nature Enough? Meaning and Truth in the Age of Science* (Cambridge: Cambridge University Press, 2006).

Most contemporary versions of Big History, at least from everything I have been able to observe, are written from the perspective of scientific naturalism. If pressed to give their opinion on whether anything of lasting significance is going on in the universe at large, most contemporary exponents of Big History would more than likely agree with physicist Steven Weinberg that the story they are telling ultimately has no point.⁹ They rightly link human history to the cosmic story, a tie-in that enriches our understanding of both ourselves and the cosmos, but the cosmos to which they link us is held to have no inherent meaning or hold any real promise. They also correctly observe that the opinion of most scientists today is that the cosmos is physically heading toward a kind of “death” as predicted by the Second Law of Thermodynamics. Correspondingly, the general assumption of Big Historians today is that the universe’s final destiny—even though presently deep time buffers us from the blow—is final nothingness. From nothingness the universe came and to nothingness it will eventually return.¹⁰

What I want to ask here then is not whether scientific naturalism with its implicit cosmic pessimism is theologically acceptable—which it clearly is not—but whether it is *intellectually* coherent. Is scientific naturalism the most intelligible framework within which to situate our understanding of the new story of life and the universe, and is it a solid basis on which to predict the ultimate destiny of the cosmos?

I believe it is not. Informed theology takes for granted of course that *science* itself is a great step forward in human understanding, but it insists that scientific naturalism is an intellectual, and not just a spiritual, dead end. Of course, theology has no reason to contest predictions that, physically speaking, the cosmos is headed toward death by energy exhaustion. Nevertheless, the prospect that the universe will end *ultimately* in a physical and energetic abyss does not rule out the possibility that even now it has a *narrative coherence* that only the future can reveal and that is approachable now only by minds habituated to hope.

To be sure, the reductive, analytical methods of science have deepened our comprehension of the past epochs of cosmic history. We can be grateful that scientific excursions into past cosmic history have allowed David Christian and other Big History scholars to narrate, in an approximately accurate way physically speaking, the cosmic story chapter by chapter starting from a few

9 See Steven Weinberg, *Dreams of a Final Theory: The Scientist's Search for the Ultimate Laws of Nature* (New York: Pantheon, 1993).

10 For examples of this pessimism see Alan Lightman and Roberta Brawer, *Origins: The Lives and Worlds of Modern Cosmologists* (Cambridge: Harvard University Press, 1990).

microseconds after the Big Bang. The bigness of history would never have disclosed itself to us apart from scientific analysis. By breaking complex phenomena down into their elementary constituents, scientific research is equivalent to taking us on a long journey into the previously hidden cosmic past.

This is all good science and theologically exciting. Scientific naturalism (as distinct from science), however, dogmatically claims that a scientifically reductive and historical analysis of nature is the *only* reliable avenue to right understanding of the cosmos. As such, its fixation on tracing the cosmic process back into the physical past inhibits the search for fuller intelligibility by suppressing all questions about the possibility of a narrative coherence that has yet to appear. It closes itself off in principle from looking for an *emergent* intelligibility that may not only vindicate our spiritual trust but may also satisfy our restless minds. More on this below.

It is important for theology to raise serious questions about scientific naturalism, since it is the main intellectual setting of contemporary academic and journalistic culture. Most exponents of Big History, I am suggesting, have yet to distance themselves sufficiently from scientific naturalism's typically materialist, atomist, and hence pessimistic, assumptions. Today some philosophers refer to the materialist worldview as "physicalism," but whatever one calls it, it usually takes physics to be the deepest or most fundamental access we have to the *real* world. As the philosopher David Papineau puts it:

... physics, unlike the other special sciences, is complete, in the sense that all physical events are determined, or have their chances determined, by prior physical events according to physical laws. In other words, we never need to look beyond the realm of the physical in order to identify a set of antecedents which fixes the chances of subsequent physical occurrence. A purely physical specification, plus physical laws, will always suffice to tell us what is physically going to happen, insofar as that can be foretold at all.¹¹

Scientific analysis leads our inquiry back to an epoch of natural history dominated by scattered units of matter—and thus in the direction of physical incoherence (relatively speaking).¹² Analysis, as I noted above, is unobjectionable, of course, since this is what science does. What is questionable, however, is the naturalistic belief that breaking things down into their elemental physical

11 David Papineau, *Philosophical Naturalism* (Cambridge, MA: Blackwell, 1993), 3.

12 Teilhard, *Human Energy, Human Energy*, trans. J. M. Cohen (New York: Harcourt Brace Jovanovich), 172–73.

particles is enough to place human thought and life on a reliable metaphysical foundation. The Duke University philosophy professor, Alex Rosenberg, to give only one of many contemporary examples of this persistent atomism, claims that it does. "Everything in the universe is made up of the stuff that physics tells us fills up space," he says. Physics, he goes on, "can tell us how everything in the universe works, in principle and in practice, better than anything else." "All the processes in the universe from atomic to bodily to mental, are purely physical processes involving fermions and bosons interacting with one another. . . ." Why, he then asks rhetorically, should we base everything on what particle physics has to say? "Well, it's simple, really," Rosenberg answers, "we trust science as the only way to acquire knowledge," and that, he concludes, "is why we are so confident about atheism."¹³

Scientific naturalism's most troublesome feature, I am arguing, is that it leaves no ontological space for the arrival of new being. Present and future phenomena, it implies, can be nothing more than the inevitable outcomes of a mindless grinding on of a deterministic causal series arising from out of the past. Present and future events alike are really nothing more, as the Oxford scientist, Peter Atkins, puts it, than past physical simplicity "masquerading" as present and future complexity.¹⁴ There is no opening for an unpredictable narrative coherence arising on the horizon of the future. Scientific naturalism seeks to make the world intelligible exclusively by following the trail of efficient and material causes back into the cosmic past as far as possible. At the end of the trail it expects to discover the foundation of all being in the elemental physical units that lie scattered there.

Instead, I am arguing, the trail leads only toward increasing sandier, more granulated, terrain. Geology, astrophysics, evolutionary biology, and cosmology all rightly seek to explain present phenomena in terms of causes arising from the past, but eventually the pursuit of past material causes maroons our minds in a chapter of early natural history where the constituent elements are maximally dispersed and have not coalesced into the remarkable syntheses that arise later in time. The further back scientific analysis goes, in other words, the more the world it finds there falls into incoherence. This is why I am claiming that scientific naturalism is not only spiritually but also intellectually unsatisfying.

13 Alex Rosenberg, *The Atheist's Guide to Reality: Enjoying Life Without Illusions* (New York: W. W. Norton & Co., 2012), 20–21.

14 Peter W. Atkins, *The 2nd Law: Energy, Chaos, and Form* (New York: Scientific American Books, 1994), 200.

It is the habit of science, even when fresh research threatens to burst older hypotheses and theories apart, to fit the new discoveries into ever simpler and mathematically more comprehensive schemes. The mathematician Gregory Chaitin explains:

For any given series of observations there are always several competing theories, and the scientist must choose among them. The model demands that the smallest algorithm, the one consisting of the fewest bits, be selected. Put another way, this rule is the familiar formulation of Occam's razor: Given differing theories of apparently equal merit, the simplest is to be preferred.¹⁵

This reductive approach, I again want to emphasize, is not wrong, but it is intellectually limited. It cannot fully accommodate the arrival of the future. It is entirely in keeping with the self-limiting character of scientific inquiry, of course, to bracket out momentarily our impression that something new may be occurring in cosmic history, for example, when life and mind come onto the scene. We can indeed learn much about nature by gathering its regularities into abstract mathematical formulations. However, the underlying question is whether scientific analysis and mathematical equations can put us in touch with the *whole story*.

Scientific naturalism greatly oversimplifies the world by looking at everything through the lens of what Teilhard de Chardin calls the "analytical illusion." The analytical illusion is the result of trying to make reality completely intelligible by decomposing everything into elemental physical constituents. In keeping with the analytical illusion, scientific naturalism makes three questionable assumptions. First, it strives to break everything in the biological and cultural worlds down into physical and chemical components, and by thus identifying the world's true being with lifeless elemental units, it amounts to what the Jewish philosopher Hans Jonas and the Christian theologian Paul Tillich both refer to as an "ontology of death."¹⁶ Second, scientific naturalism typically ignores the inner world, the realm of subjectivity, by focusing

15 Gregory J. Chaitin, "Randomness and Mathematical Proof," in Niels Gregersen, ed., *From Complexity to Life: On the Emergence of Life and Meaning* (New York: Oxford University Press, 2003), 23.

16 Hans Jonas, *The Phenomenon of Life* (New York: Harper & Row, 1966), 9; Paul Tillich, *Systematic Theology*, Vol. 111 (Chicago: University of Chicago Press, 1963), 19.

exclusively on what is objectifiable.¹⁷ Looking at the world impersonally and from the outside, scientific naturalism can say nothing about the inner experience of living and conscious beings. And third, it seeks to make accurate predictions about what will happen in the future only on the basis of what it takes to be inviolable physics “laws” that have allegedly governed and determined everything that has ever happened in cosmic history and that will ever occur in the future.

To theology the ultimate explanation of nature and nature’s laws is the creativity, love, power, and wisdom of God, the One who perpetually opens up a new future for the world. Scientific naturalism, as distinct from science, is a rival belief system according to which science, at least in principle, can explain all things exhaustively and ultimately in terms of what has already been. In its belief that science alone can provide ultimate and final explanation, scientific naturalism in effect turns science into an alternative worldview, a metaphysics of the past. This is the main reason why I am arguing that it is not science but scientific naturalism that stands in opposition to Christian theology.

Contrary to scientific naturalism, I am proposing here that the world can begin to become intelligible to us only if, after journeying into the distant past, we reverse direction, turn around, cast our gaze toward the future, and look for a coherence arriving from up ahead. Taking our bearings from any point in the cosmic past, it is only in the direction of the future that the elements start coming together into more complex arrangements. We can understand the early epoch of hydrogen and helium atoms better, therefore, if we *wait* and see what atoms can do when they converge to make molecules, rather than focusing on them only as separate monads scattered in earlier cosmic eras. We can understand what a molecule is only if we wait to see what it can do in communion with other molecules in the environment of the cell. And we can understand a living cell in depth only if we watch out for what it can do in combination with other cells in jointly building up into organisms.

Jumping ahead, then, we do not understand the human units we call “persons” except in the context of what they can become in a community of other persons, beings capable of making and keeping promises. To understand our universe, in every chapter of its emergence, we have to *wait* for the future to dawn. We need to be wakeful and not simply reminiscent. We cannot be content to predict the future only on the basis of what has already happened, for that is not the way to appreciate a drama still unfolding. This does not mean

17 Pierre Teilhard de Chardin, *The Human Phenomenon*, trans. by Sarah Appleton-Weber (Portland, OR: Sussex Academic Press, 1999), 23–24.

we can learn nothing from looking into the past, of course, but from a biblical perspective the primary lesson to be learned by reciting the deeds of old, including the mighty acts of God in the cosmic drama, is to be open to an unpredictable future presently out of range.

Theologically and metaphysically speaking this is because the fullness of being and meaning reside in what is coming, in the kingdom of the not-yet. Christian faith and theology, therefore, can embrace Big History only if we can look forward not just to the salvation of our souls but also to the redemptive transformation of “the whole of reality.”¹⁸ The New Testament, we need to recall, expresses a hope not only for new life beyond personal death but also for the future renewal of all creation. Christians, therefore, are encouraged to extend their religious expectations far beyond purely human horizons. Today this means that we may project our aspirations forward beyond the fixed cosmic past and beyond all present moments, beyond the Big Bang universe and beyond any larger totality of worlds, toward the promising God who longs for *all* cosmic becoming to reach final fulfillment.

“Christian hope,” says theologian Jürgen Moltmann, “is directed towards . . . a new creation of all things by the God of the resurrection of Jesus Christ.”¹⁹ To Christians the whole of reality lies perpetually open to a new future. The “really real” is never something we can ever grasp simply by looking only at what has so far been actualized. The *real* world, metaphysically speaking, can become truly intelligible to us, therefore, not by our looking (in a purely analytical way) into what has already happened or even toward what lies above, but only by our looking toward what is coming from *up ahead*. Such a vision of reality demands, epistemologically speaking, that we put on the habit of hope. Hope, however, is not the same thing as wishing, since wishing takes its shape from what has been pleasing in the past. Wishing can be content with mere illusions. Hope can be satisfied, however, only by drawing us closer to what is supremely real and intelligible, a goal that can only be anticipated and not comprehensively corralled in the here and now.

Biblical hope, therefore, brings along with it a worldview that is radically distinct from the scientific naturalism taken for granted by most contemporary intellectuals including proponents of Big History. Christian hope implies a *metaphysics of the future*, as distinct from scientific naturalism’s preference for a *metaphysics of the past*, a vision of things that looks reductively downward and temporally backward in search of intelligibility. And a metaphysics

18 Jürgen Moltmann, *Theology of Hope: On the Ground and the Implications of a Christian Eschatology*, trans. James W. Leitch (New York: Harper & Row, 1967), 34.

19 Ibid., 33.

of the future also differs from a *metaphysics of the eternal present*, the ancient and medieval vision of reality that seeks to make sense of things by viewing them as analogies or participations (Platonically) in what lies “above,” outside of the perishable realm of becoming. On the other hand, even though much traditional theology has embraced a metaphysics of the eternal present as the intellectual framework for its devotional and theological life, Christianity, to the extent that it is biblical, entails a metaphysics in which ultimate reality, in the words of Catholic theologian Karl Rahner, is the Absolute Future.²⁰

Even though we cannot expect ever to grasp or comprehend the elusive futurity of God, as Paul Tillich observes, we can allow it to grasp us. “The coming order is always coming, shaking this order, fighting with it, conquering it and conquered by it. The coming order is always at hand. But one can never say: ‘It is here! It is there!’ One can never grasp it. But one can be grasped by it.”²¹ Not only spatially but also temporally, therefore, the divine mystery we hope to encounter, a mystery that gives both a goal and meaning to the cosmic story, lies infinitely beyond anything we could possibly imagine or conceive here and now. As such, it is a perpetual promise that there will always be a future. When we say *Deus semper maior* (God is always greater), therefore, we mean that God is the still unavailable future beyond all futures that human beings may try to conjure up on the basis of their present or past experience and understanding.

Spatially the heavens as pictured in the deep Hubble Field, may astound us, but even in their staggering expansiveness they do not give us the fullness of the futurity for which we long. The psalmist gives thanks that God has placed us “in a free and open space” (Ps 18), but to have ample spiritual breathing room human beings also need the openness of an endless future. In the light of Big History, therefore, trust in the God of Abraham and the prophets, devotion to the Father of Jesus, and pursuit of the kingdom of God must now be seen as opening wide the frontiers of the future not only to human persons but to the whole universe. As far as personal life is concerned, the God of promise removes all barriers that past and present events may seem to have placed on our lives and aspirations. But this same God delivers the whole of creation from the weight of fixity and unbearable sameness. It is in the theological context of cosmic hope, therefore, that I think Christian theology must locate our new awareness of Big History.

Accentuating the “futurity” of God has its roots in Abrahamic faith, but as theologian Jürgen Moltmann has rightly emphasized in his still relevant

20 Karl Rahner, S. J., *Theological Investigations*, vol. 6, trans. Karl Kruger and Boniface Kruger (Baltimore: Helicon, 1969), 59–68.

21 Paul Tillich, *The Shaking of the Foundations* (New York: Charles Scribner's Sons, 1996), 27.

Theology of Hope (first published in 1965), the biblical association of God with the future has been obscured during the many centuries in which Christian thought and spiritual life have been dominated by Parmenidean, Platonic, Neoplatonic, and Aristotelian metaphysics, none of which is able to mediate a truly biblical sense of the futurity of being.²² Even as far back as the apostolic age Christian thought started adapting to metaphysical systems that conceive of ultimate reality as changeless and timeless rather than arriving from out of the future. Hence perfection, a necessary attribute of deity, has more often than not been associated with changelessness than with endless openness. As a result, the future opened up by prophetic faith and the early Christian experience of the risen Christ has been suppressed in favor of a longing for permanent union with God in a nonmaterial heaven. The early Christian experience of being empowered by the Spirit of God, and the expectation of the “coming of God,” have given way to an otherworldly optimism that seeks to escape from history and time altogether. In the process, biblical hope for new creation has been supplanted by a world-fleeing anxiety at the thought of our being estranged from the timeless perfection above. Accordingly, many if not most Christians still think of redemption as a harvesting of souls from the physical universe and of human destiny as the migration of immortal souls from the imperfection of temporal, worldly existence to their “true home” in heaven above. To Christians who harbor this kind of expectation it goes without saying that Big History will matter very little. A resurrection faith, however, will view Big History with considerable interest.

Scientific discoveries, in any case, have exposed the universe as spatially too large and temporarily too expansive for the sense of God most of us acquired early in our lives. It has never been easy for educated people to worship with any real sincerity a God who seems smaller than the universe, but Christian education and preaching still seldom proportion their sense of God to the newly discovered dimensions of the cosmos. Close attention to the biblical discovery of the future, in combination with our new awareness of Big History, now allows for a major readjustment of Christian thought, but our theology, preaching, and education have a long way to go in responding to this exigency. At the same time, however, the scientific naturalist worldview in which Big History has found its intellectual home is also too cramped both spiritually and intellectually to accommodate the sense that the cosmos still has a future and an intelligibility that fall far beyond the horizon of what scientific research has already laid open. What is needed, I believe, is a worldview that is wide enough to embrace both Christian faith and Big History. I am calling this worldview a

22 See note 16 above.

metaphysics of the future, but for the sake of linguistic efficiency we may also refer to it more simply as *cosmic hope* to distinguish it from the *otherworldly optimism* of the traditional metaphysics of the eternal present on the one hand and from the *cosmic pessimism* logically entailed by scientific naturalism on the other.

Cosmic hope embraces the natural sciences enthusiastically, but it locates them in a wider setting than either of its two rivals. To those who have hope for cosmic redemption, or to what the Apostle Paul calls new creation, science is important, but science cannot see everything, especially what is still to come in the cosmic future. Understood in terms of a metaphysics of the future, therefore, the still emerging, unfinished universe of contemporary science seems to have a surprising consonance with cosmic hope and hence with Abrahamic faith. It is only in the future, says Teilhard, that “the past lines of evolution take on their maximum coherence.”²³ Scientific naturalism, by contrast, cannot prepare our minds and hearts to encounter anything that is truly future. Its fixation on a purely scientific method of looking at the world is irreconcilable with the sense of expectation that sparked the faith of Israel and the earliest Christian ecclesial gatherings. Cosmic hope, to repeat, is not incompatible with science, only with a cosmic pessimism that leaves no room for what is truly new. Christian hope is compatible with science, but not with scientific naturalism’s assumption that all present and coming events are already fully determined by what has already happened. Specifically, then, our theological language needs to make a metaphorical transition from a mechanistic to a *dramatic* way of looking at nature. Once we make this linguistic transition we may envision the regulations underlying nature-in-process less as imprisoning “laws” and more accurately as enabling constraints analogous to rules of *grammar*. This metaphorical shift will let us situate science more comfortably within the overarching framework of a metaphysics of the future.²⁴ For, as Teilhard puts it, the world leans on the future as its true foundation.²⁵

23 Pierre Teilhard de Chardin, *The Human Phenomenon*, 163.

24 I am using this expression in order to capture the biblical sense that what is “really real” for a community of hope lies “up ahead” in a future that has yet to be actualized by the God who is coming. For similar, but not identical, views see Jürgen Moltmann, *The Experiment Hope*, ed. and trans. by M. Douglas Meeks (Philadelphia: Fortress Press, 1975), 48; Wolfhart Pannenberg, *Faith and Reality*, trans. John Maxwell (Philadelphia: Westminster Press, 1977), 58–59; Karl Rahner, *Theological Investigation*, vol. VI, trans. Karl and Boniface Kruger (Baltimore: Helicon, 1969), 59–68. It is especially Rahner’s understanding of God as the “Absolute Future” that lies behind my understanding here.

25 Pierre Teilhard de Chardin, *Activation of Energy*, trans. René Hague (New York: Harcourt Brace Jovanovich, Inc., 1970), 239.

2 Summary and Conclusion

What gives consistency to creation is the world's overall thrust toward what is yet to come. Were creation's forward momentum to slacken even for an instant, nature would be drawn back toward the multiplicity and diffusion of the particulate past.²⁶ It would fall back, in other words, toward incoherence. To get in touch, and stay in touch, with what is real and intelligible, therefore, our consciousness must adopt the posture of hope, of anticipating what is new and unprecedented, for only in that direction will deeper coherence show up. Scientific method by itself, since it tries to correlate new data with what is already fixed and familiar, is conditioned to ignore, at least at first, whatever is truly unprecedented. It tries to corral the unfamiliar into the confines of known regulations it calls laws of nature.

Christianity, on the other hand, invites us to look at the world through the eyes of hope. "From first to last," Jürgen Moltmann says, "Christianity . . . is hope, forward looking and forward moving, and therefore also revolutionizing and transforming the present." Hope is the "medium of Christian faith as such, the key in which everything in it is set, the glow that suffuses everything here in the dawn of an expected new day."²⁷ Along with the prophets of old, Christianity thinks of God as the One who breathes existence into all things in the very act of opening creation to the future, of making all things new, and of promising victory over death, the emblem of all falling back toward the nothingness and unintelligibility of sheer multiplicity.

Viewing the world through the eyes of science alone, as scientism prescribes, therefore, amounts, logically speaking, to giving metaphysical primacy to death and determinism rather than life and freedom. A metaphysics of the future, on the other hand, provides our minds with limitless breathing room and thinks of God as the ground of freedom by virtue of being the world's Absolute Future. As the risen Lord, the Son of God continues even now to open up the entirety of creation to a new future. Only in the context of a cosmic future centered on the risen Christ can we hope to enjoy the fullness of redemption and freedom.

Christian theology may keep growing in the presence of scientific challenges, but it is under no intellectual compulsion to surrender its hope for new creation. Today, theology will grow more intellectually robust by becoming attuned to biological evolution and the expanding universe, realities that for many sincere seekers have surpassed in magnitude and explanatory power our

²⁶ Ibid.

²⁷ Moltmann, *Theology of Hope*, 16.

traditional ideas about God. A theology of nature, however, will try to show how theological reflection can provide a wide and generous ambience for the work of science. Christianity, of course, is not qualified to introduce new scientific information. It does not appropriately decide whether this or that scientific idea is right or wrong. Nevertheless, a Christian theological setting can liberate science from being imprisoned by scientific naturalism—a belief system that makes the world not only too small for theology but also the human mind.²⁸

28 Pope John Paul II, "Letter to the Reverend George V. Coyne, S.J., Director of the Vatican Observatory," *Origins* 18, 23 (November 17, 1988), 378: "Science can purify religion from error and superstition; religion can purify science from idolatry and false absolutes. Each can draw the other into a wider world, a world in which both can flourish."

The Creation Stories We Live By

Graham B. Walker

1 Bio-diversity and Common Cause

In the convictional communities that usually comprise discussions between scientists and theologians you can find those who stake out their positions as either naturalizing religion or theologizing nature.¹ It is quite rare when an eminent evolutionary biologist breaks from his in-group to address religious foes with respect and concern. Yet, this is exactly what Edward O. Wilson has done in his work *The Creation: An Appeal to Save Life on Earth*.² For this reason, it is important for those situated believers who are usually opposed by Wilson to listen carefully to his appeal.

Wilson's working assumption is that many religious communities, and especially conservative Christians he left more than fifty years earlier, tend to disregard environmental causes as liberal extremism for which they claim no affinity.³ Wilson's appeal is more a plea to set aside these cognitive maps that divide the communities and to refocus the discussion through a reframing of faith and science toward an ethic of self-restraint toward the natural world.

Wilson states his appeal as a letter to an imaginary Southern Baptist minister. Wilson, himself a former Southern Baptist child reared in Alabama and today a secular humanist, proposes to the pastor that they lay aside principled disagreements about evolution and intelligent design.⁴ Wilson concludes they do not need to answer or agree upon every mystery of the universe to confront problems that are, by any account, serious and urgent. He understands that some will see in the nature as a divine creation, and that there is a Lord of Life who makes nothing in vain. For others living Nature, every plant or animal, is a masterpiece of biology, of random selection. Does this difference in worldview separate Wilson and the pastor in all things? "It does not. . . . Let us see, then, if

1 Barbara Herrnstein Smith, *Natural Reflections: Human Cognition at the Nexus of Science and Religion* (New Haven: Yale University Press, 2009), 10.

2 E. O. Wilson, *The Creation: An Appeal To Save Life On Earth* (New York: W. W. Norton & Co., 2007).

3 Ibid., 7.

4 Ibid., 167.

we can, and you are willing, to meet on the near side of metaphysics in order to deal with the real world we share.”⁵

Looking around the real world, the rest of life is vanishing. Half of all species could be gone forever by the century’s end, leaving only the genetic codes that wildlife biologists have stored away. “Five percent of the Earth’s land surface is burned every year”⁶ to make way for cattle and crops, helping to fill the atmosphere with greenhouse gases “sufficient to destabilize the climates of the entire planet.”⁷ Throw in the effects of industrial pollution, merciless hunting and commercial fishing practices, invasive species showing up everywhere,⁸ and the unyielding demands of human development, and “Now a sixth (extinction) spasm has begun, this one the result of human activity.”⁹ Human life itself has become the giant meteorite of our time doing grave injury to the biosphere upon which we and all life depend. As other creatures are brushed aside or driven off, humanity could soon enter what “poets and scientists alike may choose to call the Eremozoic Era—the Age of Loneliness.”¹⁰

Wilson reminds us of the unnumbered “opportunity costs” to science, medicine, and agriculture with every departed species. He proposes a sensible objective—“to raise people everywhere to a decent standard of living while preserving as much of the rest of life as possible”—and to this end would expand marine sanctuaries and protect biological “hot spots” like the Amazon and Congolese forests.¹¹ In general he advises an attitude of care and humility toward the natural world, which should have a familiar ring to the pastor, and a prudent stance of “existential conservatism.”¹²

Buried within Wilson’s portrayal of Christianity is his latent humanist critique. Because he thinks that only an immanentist (this-worldly) perspective can truly include all that is material, natural, and bodily, he sees much of the Christian tradition’s ascetic, disciplinary paths as denigrations of “this-worldly” life.¹³ Charles Taylor provides an excellent framework by which we can identify the dilemma that Wilson addresses. For Taylor, there are two crucial criticisms of Christianity brought by the exclusive humanist:

5 Ibid., 4.

6 Ibid., 16.

7 Ibid.

8 Ibid., 53.

9 Ibid., 74.

10 Ibid., 91.

11 Ibid., 94–98.

12 Ibid., 167.

13 Ibid., 6.

- (1) By inviting us to “transcend humanity,” religion in general and Christianity in particular mutilate us, ask us to repress what is really human.¹⁴
- (2) By holding out promise that the world could be otherwise, “religion tends to bowdlerize reality”—glossing over the difficult aspects of nature.¹⁵

The two horns of this dilemma seem difficult for Christian theology to escape. As Wilson notes, religious history like civilization itself was “purchased by the betrayal of Nature.”¹⁶ Accordingly, he states, “human nature is deeper and broader than the artificial contrivance of any existing culture.”¹⁷ Thus, we dare not repress the deep roots of *Homo sapiens* that extend into the natural world. On the other hand, Wilson warns against the theologizing of nature that glosses over the evidence. Wilson is particularly critical of any explanation of the natural evolution of life that involves teleological conclusions: “God made the Creation, you say. This truth is plainly stated in Holy Scripture. Twenty-five centuries of theology and much of Western civilization have been built upon it. But no, I say, respectfully, Life was self-assembled by random mutation and natural selection of codifying molecules.”¹⁸ And Wilson sees no hope for a compromise between the two convictional communities through Intelligent Design.¹⁹

Ironically, Wilson’s exclusive humanism gets hung up on the same horns. On the one hand, humanism is capable of selling human nature short by underestimating the human ability to change. Humanity is reduced to a survival of the fittest estimation in which transformation is impossible, leading to a neo-Nietzschean position. On the other hand, it sets the bar too high and in the process justifies some very destructive attempts at change.²⁰ If we borrow Charles Taylor’s framing of our contemporary world, then this is not simply a binary debate between believers and non-believers. It is a triangulated scenario with 1) secular humanists (like Wilson), 2) neo-Nietzschean

14 Charles Taylor, *A Secular Age* (Cambridge: Belknap Press of Harvard University Press, 2007), 623.

15 *Ibid.*, 624.

16 Wilson, *The Creation*, 11.

17 *Ibid.*, 12.

18 *Ibid.*, 165–66.

19 *Ibid.* It is fair to say, in my estimation, that E.O. Wilson would level the same degree of disagreement with other attempts to “theologize nature.” For example, he would be unlikely to endorse the science of Teilhard de Chardin. For an in depth examination of perspectives that attempt to “theologize nature” and those that attempt to “naturalize religion” I would suggest Barbara Herrnstein Smith, *Natural Reflections*.

20 Taylor, *A Secular Age*, 624.

anti-humanists, and 3) “those who acknowledge some good beyond life.”²¹ Taylor helpfully complicates matters and allows us to see the dynamic relationship emerging between the three options. Whereas Wilson joins the same evolutionary biological grounding of the neo-Nietzscheans against Christian Platonism, he nevertheless calls upon our Southern Baptist pastor, saying:

You and I are both humanists in the broadest sense: human welfare is at the center of our thought. But the difference between humanism based on religion and humanism based on science radiates through philosophy and the very meaning we assign ourselves as a species. They affect the way we separately authenticate our ethics, our patriotism, our social structure, our personal dignity.²²

Wilson’s unique appeal to an embedded Christian community lies in the realization that within a world shared by all frames of reference, sometimes my enemy’s enemy will be my friend. In so doing, both acknowledgers of transcendence and Enlightenment humanists like Wilson affirm some kind of transformational logic that functions as a “beyond” to which humanity is called. Charles Taylor describes it this way: “Any pair (of this triad) can gang up against the third on some important issue.”²³

Edward O. Wilson invites Christianity to join him as we “gang up” as it were on the adoption of a purely instrumental, “rational” stance towards the world. There is something fundamentally wrong, blind, hubristic, even impious in taking this stance to the world in which the environment is seen exclusively in terms of the human purposes to which it can be put. Wilson reminds us, this reaction can take either a Christian or unbelieving form. So too can the response.

An actual minister might note that presumption, pride, gluttony, and cruelty figure prominently in Wilson’s story of ecological crisis. Wilson could have cited an impressive number of Christian thinkers who have tackled the crisis of humanity at the bottleneck of overpopulation and wasteful consumption that we are expecting to encounter by the end of this century. He did not. We will turn our attention to the way in which Karl Barth sets the foundation for such a Baptist pastor to respond to Wilson’s appeal. It may be, the good pastor could reply, that Judeo-Christian theology and reflection is a kind of moral biosphere

²¹ Ibid., 636.

²² Wilson, *The Creation*, 167.

²³ Taylor, *A Secular Age*, 636.

from which this good cause may continue to draw, with or without acknowledgment, and that more deference is due from scientists on that account.

2 Creation and Nature

Charles Taylor portrays our secular age as one of alienation from the world as if it were a collection of unrelated objects set adrift in a sea of anomie, or at least as only directed by human flourishing however that is individually defined. Probably, the worst of scenarios is to see the world as an aggregate of unrelated delicacies set upon a plate before voracious global consumers. Either image is frightening. This sense of “disconnection” so characteristic of the modern life affects not only the relationship between humanity and the environment; it seems well on its way to making the planet uninhabitable. As E. O. Wilson illustrates, the likelihood of a self-contained human biosphere without significant biodiversity is more the fodder of fiction than a realistic hope.²⁴ The globe is warming at alarming rate. We cannot take fresh air or clean water for granted. Our oceans are choked with human garbage. The ozone layer is being depleted at rates that constantly exceed our estimates. “Only Nature can serve as the planetary ark.”²⁵

At this point we must briefly re-examine those Western Christian theological streams that have shaped the Christian apocalypticism and Platonizing that Wilson finds most harmful within the Judeo-Christian tradition.²⁶ After

24 See Wilson’s extended discussion of the “Biospherian experiment in Oracle, Arizona,” in the Fall of 1991. The Biospherians stayed in an enclosed artificial environment for almost two years. It taught the researchers just how vulnerable human beings are. “No one yet knows how to engineer systems that provide humans with the life-supporting services that natural ecosystems produce and despite its mysteries and hazards, Earth remains the only known home that can sustain life.” Edward O. Wilson, *Consilience: The Unity of Knowledge* (New York: Vintage Books, 1998), 306.

25 Wilson, *The Creation*, 89.

26 Wilson characterizes the Evangelical Christian worldview as that described in the Apocalypse of John, the book of Revelation. This truncated perspective lacks the influence of Augustine. While Wilson sees this as a central perspective within Christian history, others, including Norman Cohn in his *Pursuit of the Millennium*, see this apocalyptic seed within Christianity as foundational, giving humanity the hope of societal and worldly transformation. Religion inspires change and revolution to a degree that no other force has been able to match. Noted Frankfurt School philosophers Ernst Bloch and Walter Benjamin both claim that Christian myths of Apocalypse resulted in faith-based movements clothed in science. Without a doubt, religion is a legitimate power in its own

identifying these we will turn to an examination of the work of Karl Barth to uncover alternative convictions within the Christian tradition that provide a means to cooperate with Wilson's existential conservationism.

Wilson recognizes the varieties of Christianities in his dialogue with the Baptist pastor; however, he gives critical attention to renditions of Christianity that denigrate embodiment and seek an apocalyptic conclusion to the problems of history. In this sense, these chosen strains of Christianity are more accurately described as "excarntational"²⁷ in that they devalue time and embodiment.²⁸ This, however, is an internal tension within the Christian convictional community that Wilson has called to our attention. In contrast to this excarnational theme, R. Alan Culpepper demonstrates the equally strong motif, and arguable the root-metaphor of the Christian tradition, divine incarnation. Culpepper grounds a creation affirming reading of the Prologue in the Gospel of John in this volume. Building on Culpepper's biblical reading I will turn to the theological work of Karl Barth who emphasizes a Christocentric view of creation. For Barth as for Culpepper, the transcendent God is unswervingly committed to the created order at its founding. Like Culpepper, Barth provides a counterpoint to Wilson's rendering of Christian theology from a Platonic, excarnational perspective. We will examine these incarnational themes in the work of Karl Barth in due course, but first we turn to a perusal of the spirit-matter and mind-body dualisms of a more Platonic Christianity.

The roots of the scientific advances of the seventeenth through nineteenth centuries were firmly founded upon the notion that human beings would master nature and make it produce more easily and plentifully for them. This notion was supported, if not endorsed by the historic Christian doctrines which taught that human beings, although they might be sinners, were created in God's image and therefore both transcend and have dominion over this earth. These two doctrines, *imago dei* and the human domination of

right. Cohn argues that Christianity injected a teleological belief into human history. That is to say, Jesus and his disciples proclaimed a better world and a better future to come after a destruction of apocalyptic proportions. History, from this point forward, was no longer understood in terms of events, but by purpose. Where is history headed? What is history's end? How is the salvation of humanity going to come about? According to Cohn, Christianity inserted these ideas into Western culture and we have never been the same since.

27 Taylor, *A Secular Age*, 293–94.

28 Wilson, *The Creation*, 82–90. What we are referring here to as "excarntation" in the language of Charles Taylor is referred to as "human exceptionalism" from an environmental perspective. I am tying together "Platonic Christianity" with "excarntation" and "human exceptionalism."

nature, are two lessons from the book of Genesis which when read from an excarnational perspective are particularly troublesome for contemporary eco-theologians. These doctrines appear to be impediments to a viable Christian concern for global bio-diversity.

The concept of “nature” itself raises very difficult theological issues. “Nature” proposes a conception of the overall context for human life which does not have built into it the dimensions of purpose, value, and meaning, all of which are drawn from the human experience of linguistic and cultural institutions.²⁹ The notion of God, on the other hand, as an agent characterized by freedom, purposiveness, and love is based on the model of human freedom and agency as experienced within society and culture. Within the Judeo-Christian worldview, it is possible to relate “nature” and “God” by means of the concept of “creation.”³⁰ As long as nature was viewed as a finite order brought into being by the infinite God, and destined to serve God’s purposes, there was a place for nature in the Judeo-Christian tradition.

The principal terms of the Christian categorical scheme are three: God, humanity, and the world. All else takes place within a framework supplied by those terms. Even Jesus Christ, whom some might wish to give priority over the others is defined as the “God-man.”³¹ In fact, these two terms, “God” and “humanity,” provide the framework within which the Christian drama is worked out.³² The notion of “world” (as heaven and earth) remains vague and undefined. Though humanity was created “out of the dust from the ground” (Gen 2:7), human beings are clearly the climax of God’s creative activity (Gen 1). Created in God’s own image (Gen 1:27), human beings are the ones for whom all other beings were made and to whose will they must be subject (Gen 1:28–29; 2:15, 18–20). Humankind is the only creature in which God has become incarnate according to the Judeo-Christian scriptures. Although the incarnation has significance for all creation (Rom 8), the divine-human relationship is clearly the axis around which all else revolves.³³

The great words of the Christian vocabulary—sin, salvation, forgiveness, repentance, hope, faith, love, righteousness—have to do primarily with human realities and with the human relation to God and to fellow humans (Greatest commandment—love God, neighbor, and self). The rest of creation simply is

29 Gordon D. Kaufman, *The Theological Imagination: Constructing The Concept of God* (Louisville: Westminster Press, 1981), 211.

30 *Ibid.*, 221.

31 *Ibid.*

32 *Ibid.*, 222.

33 *Ibid.*, 225.

not of central theological importance and thus never became the subject of any technical theological vocabulary or doctrines. In part, this was because the biblical tradition and human reflection before Thomas Malthus could not have imagined a global annihilation of our species apart from a divine act, as in the Noahic flood (Gen 9).³⁴

The two central terms “God and Humanity” were understood to refer to realities which had a certain fundamental kinship with each other, not shared by any other creature. Human beings were created in the image of God, and therefore the metaphors of Lord, King, warrior, judge, father, and the like could inversely be applied to the concept of “God.” The ultimate reality was thought of anthropomorphically, and humanity was believed to be at the very center of this reality’s interest and affection (John 3:16). In the middle ages, Thomas Aquinas, indebted to Aristotle, explained that every creature in nature exists for a purpose, and the ultimate purpose of the less rational is to serve the needs of the more rational. In this regard, plants exist to serve animals for food, and the nonhuman animals exist to provide food and clothing for human beings.³⁵ During the Renaissance, some aspects of Aquinas’s theology were challenged, but rarely the special place of humanity. Human beings were unique; although part of the physical world of animals, they had immortal souls and so were linked to the angels and to God. Here we receive Wilson’s charge of “other-worldliness” at its heaviest. For in this theology, the line that separated humanity from God and united it with all the rest of the created order as creatures seems to be erased for humanity. The great divide between the Creator and created seems to have been bridged, at least for humanity. Renaissance Italian philosopher Marsilio Ficino seems to confirm this appraisal of human uniqueness by describing humanity as “the center of nature, the middle of the universe, the chain of the world.”³⁶

Seventeenth century philosopher René Descartes took the hybrid dimensions of mortal and immortal human nature found in Aquinas’s theology and separated humanity further from all other species. Influenced by the

34 See Thomas Robert Malthus, *An Essay on the Principle of Population* (1798; rpt. ed.; New York: Cambridge University Press, 1992). Malthus may have been one of the first to project an extinction of *Homo sapiens* based upon population theory. Simply stated, population increases geometrically, and food supply can increase only arithmetically; therefore the struggle for existence is inevitable. Under certain circumstances this could lead to extinction.

35 Aristotle, *Politics*, trans. John Warrington (London: J. M. Dent & Sons, 1959), 6.

36 Marsilio Ficino, *Theologica Platonica*, first published 1474 various editions, III, 2 and XVI, 3, as found in Peter Singer, *Rethinking Life and Death: The Collapse of Our Traditional Ethics* (New York: St. Martin's Griffin, 1994), 167.

successful science of mechanics, he postulated that all material things, including animals, are governed by mechanistic principles like those of any other machine. Consciousness, however, is entirely different. According to Descartes, it is our immortal soul which makes it possible for us to have consciousness and to have thoughts. Animals do not have immortal souls and therefore cannot be conscious. They are machines.³⁷ More than a century later, Immanuel Kant maintained the same view of humanity as split between the material and immaterial world. All other creatures are means to an end and that end is humanity. Humans, however, as reasoning, self-conscious, autonomous beings, must be respected as ends in themselves.³⁸

With this kind of mooring sustaining the mechanistic view of the sciences it is not surprising that theologians and humanists alike singled out human life as sacrosanct and moved nonhuman life to the periphery of concern. For the theologians, to end a human life is to end the life of a being made in the image of God; this is an act reserved for God alone. Philosophically, to kill a human being is to kill a self-conscious, autonomous being. All can be contrasted to the taking of nonhuman life, which is either an act honored within the humanity's dominion over creation, or it is simply the taking of a material thing which is not self-conscious and whose life serves as a means to an end. In either scenario, the natural world serves the needs and desires of human beings however justified.

For much of Christian history the rest of the created order was seen to have significance only in the ways in which it symbolized or mirrored various aspects of the human problem. In the Christian categorical scheme, the created order had little or no significance in its own right. The relative disregard for "nature" was not an accident; it is part of an inner convictional logic shared by both Western Christianity and the sciences. For much of human history, such an anthropocentric worldview was of little consequence. Yet, with the population explosion of our species and our voracious consumptive habits, we are led ever closer to becoming Wilson's "devastating meteorite."

3 Closing the Gap

In the nineteenth century the line of separation that demarcated the material and immaterial began to fade. Charles Darwin wrote in his notebook in 1838:

37 René Descartes, *Discourse on Method*, first published in 1637.

38 Immanuel Kant, *Lectures on Ethics*, trans. L. Infield (New York: Harper Torchbooks, 1963), 239–40.

"Man in his arrogance thinks himself a great work, worthy of the interposition of deity. More humble and, I believe, true to consider him created from animal."³⁹ Darwin had begun to pull the idea of the human being back across the line of separation from the immaterial to the material. In *Origin of Species* (1859) he outlined how different species of plants and animals have evolved by random mutation, which has been referred to as "natural selection."⁴⁰ As noted above, the implications of human origins were already evident for Darwin. He waited until 1871 to release *The Descent of Man* so as to establish some degree of acceptance for his theory before releasing his most controversial observation: the differences between human beings and animals are differences of degree, not kind.⁴¹ E. O. Wilson's long career as the architect of the field of sociobiology would make him one of the first to affirm the third and fourth chapters of *The Descent*. In these two chapters, Darwin identifies the roots of human capacities to love and to reason, even to demonstrate morality in nonhuman animal form.

The arrival of such a decentering of human uniqueness was met with an immediate push back by philosophers and theologians alike. However, with the weight of evidence mounting in favor of Darwin's evolutionary model, the twentieth century the clash between the titans of science and religion in England seemed all but resolved. The debate, however, was just reaching the insular shores of the United States. The publication of *Origin of Species* unleashed a torrent of responses from those who feared that Darwin would cauterize the Christian faith by separating God from the creation story. American Botanist Asa Gray first reviewed the *Origin of Species* in the *Atlantic Monthly* and declared that Americans should "no longer rely on a literal reading of Genesis for answers to biological questions."⁴² Gray, himself a Christian, believed that God could work through the natural selection process. While most American scientists had come to accept the principles of evolution by the end of the 1800s, Americans Protestants still considered the Bible to be

39 Charles Darwin, *Notebooks*, 1836–1844, ed. Paul H. Barrett et al. (Ithaca: Cornell University Press, 1987), 300.

40 http://pages.britishlibrary.net/charles.darwin/texts/origin1859/origin_fm.html *On the Origin of Species* 1st edition (1859). It is important to note that Darwin does not mean a teleological notion within the concept of "natural selection" as if "nature chooses." See also two essays that Darwin wrote in 1842 and 1844 that were never published in his lifetime at http://pages.britishlibrary.net/charles.darwin/texts/foundations/foundations_fm.htm.

41 Charles Darwin, *The Descent of Man and Selection in Relation to Sex* (1871), John Tyler Bonner and Robert M. May, eds. (Princeton: Princeton University Press, 1992). This can also be located at <http://pages.britishlibrary.net/charles.darwin>.

42 Carl Zimmer, *Evolution: The Triumph of an Idea* (New York: HarperCollins, 2001), 315.

literal truth at the close of the century. The clash between science and religion found its flash point in Darwin's dangerous idea. Harvard University Professor Stephen Jay Gould writes:

No scientific revolution can match Darwin's discovery in degree of upset to our previous comforts and certainties. In the only conceivable challenge, Copernicus and Galileo moved our cosmic location from the center of the universe to a small and peripheral body circling a central sun. But this cosmic reorganization only fractured our concept of real estate; Darwinian evolution, on the other hand, revolutionized our view of our own meaning and essence (insofar as science can address such questions at all): Who are we? How did we get here? How are we related to other creatures, and in what manner? Evolution substituted a naturalistic explanation of cold comfort for our former conviction that a benevolent deity fashioned us directly in his own image, to have dominion over the entire earth and all its creatures—and that all but the first five days of earthly history have been graced by our ruling presence. In evolutionary terms, however, humans represent but one tiny twig on an enormous and luxuriantly branching tree of life, with all twigs interconnected by descent, and the entire tree growing (so far as science can tell) by a natural and law-like process.⁴³

This clash was acerbated by the rise of public education. During the 1890s there were only 200,000 American children attending public schools. In 1920 that number had exploded to more than 2 million enrolled. Asa Gray's declaration that Americans should jettison a literal interpretation of the Genesis creation story now became a matter of public policy as public school systems began to inject evolution into the biology curriculum. The debate continues to have life in southern churches today as ministers are called upon to explain to their congregants how the authority of the Bible can be maintained as the voice of science crescendos. Science proposes new narratives of creation that appear to contradict the biblical account.⁴⁴

43 Ibid., xi.

44 See Graham B. Walker, Jr., "An Evolving Conversation," *Review & Expositor: The Centennial Issue* 101, 1 (Winter, 2004): 97–120. According to contemporary Creationist Philip Johnson, Darwinists have adhered to the myth out of self-interest and a zealous desire to put down God. He is the most visible anti-evolutionist of recent times and is neither a scientist nor a theologian but a law professor at the University of California at Berkeley. After reading a popular polemic for atheistic evolution by Richard Dawkins, *The Blind Watchmaker*

Darwin's naturalistic interpretation of the evolutionary process led to corrupt misinterpretations along economic, racial, and nationalistic lines. In the laissez faire "social evolutionism" advanced by William Graham Sumner, a political scientist at Yale in the 1920s, market forces determined the "survival of the fittest." This social legitimization gave the new robber barons of the Industrial Revolution such as Andrew Carnegie and John D. Rockefeller a cruel, but powerful narrative from which to declare that the millionaires are a product of natural selection acting on the whole body of humanity. Similarly misinterpreting Darwin's theory, the German biologist Ernst Haeckel justified the savagery of World War I along natural selection lines. "We are proud of having so immensely outstripped our lower animal ancestors and derive from it the consoling assurance that in the future also, mankind as a whole will follow the glorious career of progressive development and attain a still higher degree of mental perfection."⁴⁵

In 1922, the Kentucky Baptist State Board of Missions passed a resolution calling for a state law banning the teaching of evolution in public schools. Lawyer and politician William Jennings Bryan embraced the Creationist resolution when it was brought before the Kentucky House of Representatives for consideration. The ban lost by a single vote, but the resolution set in motion a vehicle for carrying the debate between biblical literalism and scientific accounts of creation throughout the southern United States.

The Creationists of the day claimed science and religion had one thing in common: they both are speaking for what is "True," albeit from radically different assumptions and hail from extremely different bases of authority. Religion appeals to truth from a revelatory source. Science utilizes an inductive approach to truth through experimentation and the production of theories, hypotheses, principles, and laws. The conflict between science and religion is best expressed by the methodological materialistic assumptions employed by scientific research in contrast with the pre-scientific biblical cosmology of the Biblical Literalists.

(1986), Johnson became convinced that the case for evolution was more rhetorical than factual. In such books as *Darwin on Trial* (1991) and *Reason in the Balance: The Case Against Naturalism in Science, Law and Education* (1995) Johnson evaluated the evidence and arguments for naturalistic evolution and concluded that evolutionists (like virtually all other scientists in his estimation) had constructed a theory based on the unwarranted assumption that scientific explanations should bar any appeal to the supernatural. By the mid-1990s Johnson was collaborating with other critics of naturalistic evolution in forming the intelligent-design movement with which E. O. Wilson so vehemently disagrees.

45 Zimmer, *Evolution*, 316.

In 1925, Tennessee was the first state to embrace the debate with legislation forbidding the teaching of evolution in the public school system. The Tennessee law remained on the books for over forty years. By the end of the 1920s, similar anti-evolution laws were passed in Mississippi, Arkansas, Florida, and Oklahoma.

The “Scopes Monkey Trial” (1925) in Dayton, Tennessee, pitted the two great legal warriors, William Jennings Bryan and Clarence Darrow, in a test of the constitutionality of a recent state statute against the teaching of evolution in public schools. Both sides desired the same outcome for the trial: the conviction of John Scopes for teaching from George Hunter’s *Civic Biology*, a high school textbook that promoted Darwin’s *The Descent of Man*. The ACLU attorneys had hoped the trial would lead to an appeal of the conviction and overturn the Tennessee statute, but due to a legal oversight on Darrow’s part the case was rejected and the Tennessee statute remained on the books.⁴⁶

Apart from a complete rejection of the revolution in biological studies, the chief strategy for buttressing biblical authority against the turning-tide of scientific research was to carefully filter the language of scripture. The task was to appendage contemporary scientific discovery while preserving the authority of the Genesis account. For example, some held that the first verse of Genesis, “In the beginning God created the heavens and the Earth,” referred to a vast time span in which matter, life, and fossils could be accounted for. God then destroyed the pre-Adamic creation and constructed an Edenic restoration in 4004 BC, the age calculated by Bishop Ussher at the beginning of the seventeenth century. In this restoration, a second “origin of species” is attributed to an actual six-day creation as recorded in Genesis. Hence, an old universe and old Earth complete with extinct creatures could be understood alongside a young earth with recent fossil records.

A second strategy involved the reassessment of the word “day” in Genesis from a poetic metaphorical perspective. In this regard, a day would not specifically mean a 24-hour period. If a day could mean “a thousand years,” then in accordance with the time-scale of Ps 90:4, a universe of ten thousand years old would be possible. In either case, the universe is much younger than any

46 See http://www.law.umkc.edu/faculty/projects/ftrials/scopes/SCO_BIBL.HTM; <http://www.dimensional.com/~randi/scopes.htm>; and a balanced re-examination of the significance of the trial in Edward J. Larson, *Summer of the Gods: The Scopes Trial and America’s Continuing Debate Over Science and Religion* (New York: Basic Books, 1998).

contemporary cosmologist could have imagined or any Darwinian evolutionist would need to establish *Homo sapiens*.⁴⁷

Darwinian evolution nevertheless continued to gain ground with the serendipitous arrival of nature.⁴⁸ Thus, the language of Genesis was rapidly losing its power to persuade and with it the belief that human beings were specially created by God, in God's image. Basically, Darwin proposes two main ideas in *The Origin of Species*.⁴⁹ First, he argues for the occurrence of biological evolution, or "descent with modification." Biological evolution is defined as a "...process of change and diversification of living things over time, and it affects all aspects of their lives—morphology, physiology, behavior, and ecology. Underlying these changes are changes in the hereditary materials. Hence, in genetic terms, evolution consists of changes in the organism's hereditary makeup."⁵⁰ Thus, biological evolution is hereditary variation that is passed from

47 Ian Barbour, *Issues In Science and Religion* (New York: Prentice Hall, 1966), and *Religion and Science: Historical and Contemporary Issues*, rev. ed (New York: HarperCollins, 1997), provide two of the best analyzes of the often heated relationship between religion and science. Barbour opts for a Process philosophy resolution to the problematic interface between Christianity and science. While it is an appropriate turn for many eco-theologians, it does address the concerns of those raised by the ecclesial community that Wilson is addressing in *The Creation: An Appeal to Save Life on Earth*. For this reason, I am not addressing process philosophy or process theology in this investigation. In Graham B. Walker, Jr. "Stewards of Sustainable Systems—The Source of Environmental Concern," in *Tambara*, Ateneo De Davao University Journal, 11 (December, 1994), I examine five theological options from within the Christian tradition that hold promise for the revalorization of the created order.

48 Neo-Darwinism and self-organization, as understood by biologists, are mechanistic operations in the evolutionary process. That is to say, the procedure of the biologist is to investigate living organisms as *if* they are machines such as cars. For further discussion see Charles Birch, "Neo-Darwinism, Self-Organization, and Divine Action in Evolution," in *Evolutionary and Molecular Biology: Scientific Perspectives on Divine Action*, ed. Robert John Russell, William R. Stoeger, S.J., and Francisco J. Ayala (Berkeley: Center of Theology and the Natural Sciences, 1998), 225–26. See also, Janet Radcliffe Richards, *Human Nature after Darwin: A Philosophical Introduction* (London: Routledge, 2000).

49 All definitions given are in light of advances in molecular biology. Thus, they are not Darwinian definitions per se; instead, they are considered Neo-Darwinian definitions.

50 Francisco J. Ayala, "The Evolution of Life: An Overview," in *Evolutionary and Molecular Biology: Scientific Perspectives on Divine Action*, ed. Robert John Russell, William R. Stoeger, S.J., and Francisco J. Ayala (Berkeley: Center for Theology and the Natural Sciences, 1998), 36.

one generation to the next.⁵¹ Second, Darwin suggests that the mechanism by which evolution occurs is natural selection. Natural selection is defined as:

... the differential reproduction of alternative hereditary variants, determined by the fact that some variants increase the likelihood that the organisms having them will survive and reproduce more successfully than will organisms carrying alternative variants. Selection may be due to differences in survival, infertility, in rate of development, in mating success, or in any other aspect of the life cycle. All of these differences can be incorporated under the term "differential reproduction" because all result in natural selection to the extent that they affect the number of progeny an organism leaves.⁵²

Darwin observed the prevalence of variation in species. Wild populations of a species as well as domesticated animals demonstrated this variability. The London Kennel Club provided the perfect laboratory to observe how random natural variations could be enhanced through selective breeding. The artificial selection of favored traits by breeders was analogous to the natural selection of a favorable variation in nature. Species were real, but not immutable to change. They were not permanent. Therefore, population pressure rises under unrestrained reproduction. This leads to a competition for scarce resources. Individuals with variations that improved their performance in the struggle left more descendants with the same variations. Inevitably, this leads to the greater survival of favored varieties, the fit, and death and extinction for the unfit. Species would evolve by branching off from preexisting species. Random variations occurred in individuals. Those with useful variations for their particular environment were able to survive longer and reproduce more than those without such environmentally adaptive variations. The favorable variations were inherited by progeny and accumulated over generations. Geographical isolation of strains with particular variations sped up their divergence from the parent stock. These processes led to the formation of well-defined varieties, or sub-species, and finally to distinct species. Incessant divergence of varieties and species from one another continued. Darwin envisioned no clear hierarchy: no species was "higher" in value or "progress" toward a goal. The direction of branching was not progressive. Thus it was not directed

51 "Hereditary variation . . . entails two mechanisms: the spontaneous mutation of one variant to another, and the sexual process that recombines those variants to form a multitude of variations." See Ayala, "The Evolution of Life," 36.

52 Ibid.

toward any particular species, say human beings. Darwin remained somewhat ambiguous on the possibility of progress in evolution.

4 Evidence for Unity in Diversity

Today's biology calls itself Darwinian; however, Darwin himself would not have been familiar with its genetic foundation. Darwin's generation worked without genetics. Although the monk Gregor Mendel's experiments had been reported in the nineteenth century, they had no impact at that time. It was not until 1900 that Mendel's work was rediscovered. It is now customary to think in terms of genes as fixed units of inheritance that remain relatively unchanged across generations. Darwin's generation had no such concept. This was an important breakthrough because Darwin had claimed that natural selection depended on the inheritance of favorable variations over generations. Genetics provided the means by which evolutionary theory could explain the variations across the generations. In fact, genetics makes evolutionary theory workable. When evolutionary biology was combined with genetics in the early twentieth century Darwinism and natural selection came into their own.⁵³

At the molecular level there is additional evidence for biological evolution.⁵⁴ For example, the DNA of all bacteria, plants, animals, and humans is made up of the same four component nucleotides—an interesting fact considering many other nucleotides exist. All of these forms of life use different sequences of the same 20 amino acids to synthesize various proteins, which is remarkable because several hundred other amino acids exist. In addition, the genetic “code” passed on to proteins through nuclear DNA is the same in all species.⁵⁵

53 See Peter Bowler, *The Mendelian Revolution: The Emergence of Hereditary Concepts in Modern Science and Society* (London: Athlone Press, 1989).

54 “The advances of molecular biology have made possible the comparative study of proteins and the nucleic acid DNA, which is the repository of hereditary (evolutionary and developmental) information.” Thus, on a molecular level, the process of evolution can be traced through our DNA, which is much more precise than the evolution of morphological traits. For further discussion see Ayala, “The Evolution of Life,” 52.

55 What is important to understand is that “. . . most of the functions in cells involve proteins, which provide much of the structure, and also catalyze (speed up) and regulate the chemical reactions by which cells maintain themselves, grow and divide. Each protein must be made to a very precise sequence of amino-acids . . . A DNA strand, then, is a stable, copiable string of ‘letters,’ arranged into groups called ‘genes.’ A typical gene might be 600–3,000 letters long in DNA language. The function of each gene is to code for a protein, which is also a long molecule built up of a sequence, like a sequence of letters.”

In fact, "Similar metabolic pathways are used by the most diverse organism to produce energy and to make up the cell components . . . This unity reveals the genetic continuity and common ancestry of all organisms. There is no other rational way to account for their molecular uniformity when numerous alternative structures are equally likely."⁵⁶ Ursula Goodenough additionally notes:

The amino acids of a given protein are grouped into functional modules called *domains*. . . . Once a particular domain is optimized for a particular function during the course of evolution, it tends to be used repeatedly. Thus most human proteins carry modified, but still recognizable, versions of domains found in the proteins of simple creatures. For example, a domain found in all mammalian odorant receptors is found as well in the receptors utilized by soil amoebae to detect chemicals in their environment. . . . Such domain sharing means that we are deeply related to the rest of life.⁵⁷

Consequently, molecular biology provides compelling evidence for the theory of biological evolution.

Building on the merger of genetics and evolutionary biology in 1973 Charles Sibley and Jon Ahlquist turned to experimenting with a DNA clock applying the methods of molecular biology to taxonomy. Their first published results focused on seventeen hundred bird species.⁵⁸ Like Darwin before them, the new methodology and combination of the new field of DNA with taxonomy allowed them to focus on their field without introducing the most explosive material with regard to human origins and hybridity. In 1984 they published their first application of the field of DNA to human origins with comparative samples from our closest relatives: common chimpanzee, pygmy chimpanzee, gorilla, orangutan, two species of gibbons, and seven species of Old World monkeys. As would be expected, the biggest difference was between any of the apes and humans with regard to the monkey; this was a 7 percent difference. Also, not surprising was the comparison between the common chimpanzee and the pygmy chimpanzee with both sharing 99.3 percent; a difference of only .7 percent. What is remarkable is the degree of common DNA shared

See Christopher Southgate, et al., *God, Humanity and the Cosmos* (Harrisburg: Trinity International Press, 1999), 145–47.

56 Ayala, "The Evolution of Life," 35.

57 Ursula Goodenough, "Biology: What One Needs to Know," *Zygon* 31 D (1996): 672–73.

58 Jared Diamond, *The Third Chimpanzee: The Evolution And Future Of The Human Animal* (New York: Harper Perennial, 1992), 19.

between either common chimpanzees or pygmy chimpanzee with humans at 98.4 percent.⁵⁹ This indicates that there is a greater difference between gorillas and chimpanzees or humans at 2.3 percent than there is between humans and chimpanzees at only 1.6 percent.

As early as the eighteenth century Swedish biologist Carl Linnaeus devised our modern system of classifying plants and animals. The categories were broken down into species, genus, family, order, phylum and kingdom and this developed a set of criteria that put human beings into the same genus with chimpanzees. In 1788, recognizing the challenges of the times, he created a special genus for human beings, *Homo*, and even a special family *Hominidae*. He wrote:

I demand of you, and of the whole world, that you show me a generic character . . . by which to distinguish between Man and Ape. I myself most assuredly know of none. I wish somebody would indicate one to me. But, if I had called man an ape, or vice versa, I would have fallen under the ban of all the ecclesiastics. It may be that as a naturalist I ought to have done so.⁶⁰

Carl Linnaeus's original taxonomy was correct, if correlated with the molecular biology of today. Sibley and Ahlquist have calibrated a time scale for our human evolution. Humans and "other chimp" evolutionary lines diverged from the apes around nine million years ago. The pygmy and common chimpanzees diverged around three million years ago. Thus, the DNA strongly supports the conclusion that human beings have been separated from other apes much shorter than paleontologists once assumed. Jared Diamond finds the genetic calibration compelling enough to reclassify human beings:

So there are not one but three species of genus *Homo* on earth today: the common chimpanzee, *Homo troglodytes*; the pygmy chimpanzee, *Homo paniscus*; and the **third chimpanzee** or human chimpanzee, *Homo sapiens*. . . . There is no doubt, however, that whenever chimpanzees learn cladistics, or whenever taxonomists from Outer Space visit Earth to inventory its inhabitants, they will unhesitatingly adopt the new classification.⁶¹

59 Ibid., 23.

60 Letter from Carl Linnaeus to J. G. Gmelin, 1788, cited by George Seldes, *The Great Thoughts* (New York: Ballantine, 1985), 274.

61 Diamond, *The Third Chimpanzee*, 25. Emphasis mine.

The similarities of humans and chimpanzees present us with an interesting problem. What if any distinguishing markers are left that separate human from non-human life, given our advances in molecular biology and genetics? In what sense is humanity able to continue to refer to a theological assessment as “special before God,” if the biological evidence only speaks of separation between species in terms of degree and not kind? What are the theological implications of our kinship with the created order?

5 Of the Creator

Edward O. Wilson issued an appeal to save life on earth. He has asked his fictional Southern Baptist pastor to join him. In response, I would like to assist the pastor by invoking reflections from Karl Barth, one of the most biblically oriented and evangelical systematic theologians in Western theology. Barth was an emphatic church theologian. He devoted his very considerable intellectual and literary gifts to articulating the great themes of the church's faith and practice, and the primary audience for his writings was the Christian community. Karl Barth saw Christian theology as an act of faith within a committed community, and he begins his theology from the position of Creator-creature relations.⁶² Barth is a perfect theological partner for our Baptist pastor precisely because of his strict theological bent. He writes:

It will perhaps be asked in criticism why I have not tackled the obvious scientific question posed in this context. It was my original belief that this would be necessary, but I later saw that there can be no scientific problems, objections, or aids in relation to what Holy Scripture and the Christian Church understand by the divine work of creation. . . . There is free scope for natural science beyond what theology describes as the work of the Creator. And theology can and must move freely where science which really is science, and not secretly a pagan Gnosis or religion, has its appointed limit.⁶³

62 John Webster, “Introducing Barth,” in *The Cambridge Companion to Karl Barth*, edited by John Webster (Cambridge: Cambridge University Press, 2000), 7–8.

63 Karl Barth, *Church Dogmatics: The Doctrine of Creation, Volume III, Part 1*, ed. B. W. Bromiley and T. F. Torrance (Edinburgh: T. & T. Clark, 1958), ix–x.

Karl Barth provides a viable way for a Christianity dominated by *excarntional* temptations to find its *incarnational* grounding again and in the process join with E. O. Wilson's call to *biophilia*.

God is not an object of scientific investigation, and therefore must be revealed. Just as God must bridge the relational gap between divinity and humanity in order for humans to be reconciled with God, so also must God bridge the epistemic gap in order for humans to know God. Knowledge is by grace and through faith alone. God does this by breaking through our subjectivity as that which stands over and against it, as that which necessarily resists our every attempt to conceptually regiment it. This otherness serves both to shroud the divine nature in complete mystery and to open the way for God's self-revelation as the absolute reality and standard to which all of our conceptualizations must answer. God's self-revelation exposes our inability to know God through our own resources, and in so doing creates both the possibility and the actuality of knowing God. Without God's self revealed, we would have neither knowledge of God nor even the capacity to know God.

God has made divinity known through the Word. The Word is the incarnation, death, and resurrection in the man Jesus Christ. But, since revelation is self-revelation, God *is* the Word. And, given the fact that what is revealed is God, then God is identical to the content of this revelation. Hence revelation as self-revelation involves the identification of three separate things: Revealer, Revelation, and Being-Revealed. God is a Trinity.

To say that Jesus is *the Word of God*, is not to say that God cannot be known through other means. It is to say that these other means derive their revelatory efficacy from Christ alone. The moon is a light only because it reflects the sun's light. In the same manner, the Scripture may also be seen as God's revelation, but only because it testifies to or reflects God's supreme revelation in Jesus Christ. So, just as God has a threefold mode of being, God's Word also possesses a threefold structure: The Word of God incarnate in Christ, the word of God testified to in Scripture, and the word of God preached by the church in the power of the Spirit.

This kind of knowing cannot be reduced to mere propositional assent; it must result in faith. For it comes about only when the believer acknowledges one's complete noetic dependence on God taking the initiative in revelation. This awareness of dependence, that the believer must begin with God and not with self, is nothing more nor less than a state of trusting in God as the source and sustainer of a new consciousness, a new subjective orientation toward God—and through God everything else. Hence, when one knows God one has faith in God. There is no neutral knowledge of God's existence, since this knowledge is possible only through an overwhelming

encounter with the divine which transforms or converts one's very consciousness from being self-centered to God-centered. Thus knowledge is conversion. In order to see the kingdom of God one must be born from above (John 3:3).

It is this covenant relationship between God and humanity that is so striking. For in it first, God is not alone; and second, humankind is not alone.⁶⁴ For God to be "not alone" means that God *grants* existence to something distinct from God's self the Trinity, God is eternally not alone. It was a pure favor that God granted existence to something distinct from God's self. If God wills not to be alone with this other then it follows that this other is truly distinct from God; this other is not a divine "emanation." The fact that God is not alone is the foundation of the creaturely world having its own reality. Here Barth is very much following the tradition of *creatio ex nihilo*, creation from nothing, as he is separating the Christian understanding of God from any form of pantheism. The Creator-creature distinction is necessary to preserve God's gracious granting of life to all creatures equally.⁶⁵ Take away the Creator and we also forfeit the reality of the creature. "The creature may be because God is."⁶⁶ To say that "man is not alone" means far more than to say that one is in relationship to an other. Rather, it means that one is dependent upon the Creator God. Human beings are not self-grounded. Humanity needs God in order to exist. Human beings "live, because God lives."⁶⁷ In that God's love precedes human existence, God grants it to us. Thus, the limitations of our creaturely being belong to the goodness of being created. Creaturely existence as such is praise for the love of God and reveals God's favor.⁶⁸

Ian McFarland invites us to extend this reflection by application of God's cosmic scope of redemption; to put it bluntly our human redemption must include the possibility of the redemption of everything. As the Genesis account clearly articulates, each kind is pronounced "good" and when united with humanity together as a whole God judges this interconnectivity "very good." (Gen 1:31). McFarland carefully constructs the scaffolding of the classic doctrine of *creatio ex nihilo*, creation from nothing. Extending Barth's fundamental assertion that creaturely existence is granted, therefore gracious

64 Karl Barth, *Church Dogmatics: The Doctrine of Creation, Volume III, Part 1*, ed. B. W. Bromiley and T. F. Torrance (Edinburgh: T. & T. Clark, 1958), 25–26.

65 Karl Barth, *Church Dogmatics: The Doctrine of Creation, Volume III, Part 3*, ed. B. W. Bromiley and T. F. Torrance (Edinburgh: T. & T. Clark, 1961), 86.

66 Barth, *CD, III/1*, 345.

67 *Ibid.*, 26.

68 Karl Barth, *Church Dogmatics: The Doctrine of Reconciliation, Volume IV, Part 3*, ed. B. W. Bromiley and T. F. Torrance (Edinburgh: T. & T. Clark, 1962), 695–96.

and good, McFarland insists that there is one fundamental way in which all creatures are equal: in the fact that they are “created.”⁶⁹ This Christian traditional claim is significant because to be created is to be brought into being by God “from nothing.” Since all creatures have God as their sole source and condition of existence, all—from the angels to the slime at the bottom of the septic tank—are equally near and far from God. Therefore, it would follow from our commitment to love God as Creator of all things that we would be willing as well to honor God’s commitment to the flourishing of all creatures. We should be equally willing to challenge and resist the making or remaking of exclusions or inequalities in creation.⁷⁰ There is no hierarchy within creaturely existence that would consciously exclude another creature. Each creature is called into being out of nothingness. Each is graciously granted both time and space. Each creature finds its purpose in relationship to the Creator, first and foremost, and as interconnected in relationship to other creatures before the Creator. In this covenant relationship the Creator has pronounced the network of creaturely beings “very good.”

In debate with Darwin, Barth concurs that “animals much lower in the level of creation have possibilities which put those of man in the shade,” in relation to which the human has no right to ascribe to oneself a “higher and better” being. Maybe “the much boasted mind of man,” by which we are alleged to be superior to the animal should be understood as the human “disease?”⁷¹ For Barth, a proper place for human beings makes it clear that “in plentitude” of creatures, “man is only a component part, very inconsiderable in some important ways and deeply dependent on creaturely elements and factors which are greatly superior to him.”⁷² According to Barth, Genesis 1 stresses the fact that the creation of plants before animals tells us that the plant world was created for itself. In and of itself, God has judged it good. Since plants can live without humans but humans cannot live without plants, the human is the “neediest of all creatures.”⁷³ Barth declares further,

Those who handle life as a divine loan will above all treat it with respect. . . . Respect is man’s astonishment, humility and awe at a fact in

69 Ian A. McFarland, *From Nothing: A Theology of Creation* (Louisville: Westminster John Knox Press, 2014), xi.

70 Rowan Williams, *On Christian Theology* (Oxford: Blackwell, 2000), 76.

71 Karl Barth, *Church Dogmatics: The Doctrine of Creation, Volume III, Part 2*, ed. B. W. Bromiley and T. F. Torrance (Edinburgh: T. & T. Clark, 1960), 89.

72 Barth, *CD III/2*, 3–4.

73 Barth, *CD III/1*, 143.

which he meets something superior—majesty, dignity, and holiness, a mystery which compels him to withdraw and keep his distance, to handle it modestly, circumspectly and carefully.⁷⁴

What separates human beings from other creatures of the Creator is the human self-awareness and consciousness of the eco-system in which humanity finds itself. Thus, as human beings we find ourselves in an unusual position among the creatures: conscious of our dependence on the creaturely world and aware of the creaturely world's goodness apart from human existence. Only from the Creator's pronouncement would human beings attend to this place of responsibility. For without God's judgment of goodness on the creaturely world prior to humanity's arrival, human beings would be inclined to proclaim a position of superiority over the creaturely world that sustains us. All other creatures would become as objects of desire before our eyes. It is here that E. O. Wilson should hear Barth's critique of Darwin. Natural selection by way of the struggle for life, red with tooth and claw, does not advance the human cause of preserving biodiversity, for much of modern history has placed humanity in competition with creation. From the perspective of the Creator, however, who grants the gift of life and pronounces that life good, there is a creaturely place before God that human beings may not usurp.⁷⁵ Human beings are charged with the care and respect of the creaturely world that the Creator has bestowed upon them prior to humanity's gracious and humble reception of the creatures for its own consumption.

If there is a freedom of man to kill animals, this signifies in any case the adoption of a qualified and in some sense enhanced responsibility. . . . He obviously cannot do this except under the pressure of necessity. Far less than all the other things which he dares to do in relation to animals, may this be ventured unthinkingly and as though it were self-evident. . . . It always contains the sharp counter-question: Who are you, man, to claim that you must venture this to maintain, support, enrich and beautify your own life? What is there in your life that you feel compelled to take this aggressive step in its favor?⁷⁶

74 Karl Barth, *Church Dogmatics: The Doctrine of Creation, Volume III, Part 4*, ed. B. W. Bromiley and T. F. Torrance (Edinburgh: T. & T. Clark, 19), 338–39.

75 Barth, *CD III/1*, 152.

76 Barth, *CD III/4*, 354.

This rules out any idea that human life differs from all the rest of creation because of humanity's immanent qualities, intelligence, or immortal soul. In this respect the Christian can join the celebration with Peter Singer, who rejoices: "Our isolation is over. Science has helped us to understand our evolutionary history, as well as our own nature and the nature of other animals."⁷⁷ Of course, Singer continues that this was because of our freedom from religious conformity that we now have a new vision of what we are as human beings, to whom we are related, the limited nature of the differences between us and other species, and the random way in which the boundaries between "us" and "them" were formed.

Yet, as Barth reminds us, if there is to be valorization of any creature beyond humanity's utility it is to be found in the God who creates and calls the creature into existence as an act of love. There are distinctive relations between God and other creatures that are not mediated by humans.⁷⁸ In that we recognize these relations in faith, we are thus "companions" with the creatures in the covenant of grace.⁷⁹ Since all creatures have God as their sole source and condition of existence, then all—from the angels to the brown eyed jersey cow—are equally near to God. Therefore, it would follow from our commitment to love God as Creator of all creatures that we should be willing as well to honor God's love and commitment to the flourishing of all God's good creatures. We should be equally willing to challenge and resist the making or remaking of exclusions or inequalities in creation. Given this foundation, Edward O. Wilson may find a friend in the task of saving life on earth.

⁷⁷ Singer, *Rethinking Life and Death*, 182.

⁷⁸ Barth, *CD III/2*, 17.

⁷⁹ Barth, *CD III/1*, 178.

Created Agencies of Creation in Genesis 1

Kurt Anders Richardson

1 Comparing Narratives

Explanatory narratives, both scientific and theological, are verbal depictions of the world. Perhaps the greatest challenge for the readers of creation narratives, whether considered diachronically or synchronically, is to integrate with cosmological narratives of time, space, and virtually uncountable constellations of stellar objects. How are theological creation narrativists and scientific cosmological narrativists to communicate? There is a good query as to whether scientific reasoning is competent to do theological reasoning and vice versa. Both would like to offer a single explanatory narrative, believing that the narratives either can be collapsed into one another or that one or the other should eliminate the other. One simple response is that creation narratives are folk belief and in no way “theoretical.” They therefore occupy a different place in human thought than critical reasoning; the relation is asymmetrical and will always occupy their own cognitive role, never to be eliminated.¹ But this is only helpful if science is free of non-theoretical concepts and discourses or if theology is free of theoretical content, i.e., immune from critical reason, and of course there are myths and theories on both sides. What is determinative is the difference between their foundational narratives. To the extent that scientific reasoning and pedagogy are full of metaphor, the relationship is far more humanly complex. Are the cosmological narratives of science and the creation narratives of theology united through a notion “hyperchronicity,”² the subsuming of one to the other or through separating them hermeneutically. In scientific and theological narratives of origin, both have a metaphysical cast, the former, materialist, with no transcendent referent, the latter hearkening to the ancient narrative deposit that ever commands that orientation of faith to the obligation to order a world of habitation for humans and other

1 Cf. Mitch Parsell, “Sellars on Thoughts and Beliefs,” *Phenomenology and the Cognitive Sciences* 10, 2 (2011): 261–75.

2 In this sense, “hyperchrony supplements diachrony’s historical focus and synchrony’s atemporal focus with the broadest conceivable temporal perspective, with a view . . . to engage the vast majority of life’s history on our planet . . .,” Lyle Eslinger, “The Enigmatic Plurals like ‘One of Us’ (Genesis 1 26, 111 22, and XI 7) in Hyperchronic Perspective,” *Vetus Testamentum* 56, 2 (2006): 171–84, p. 181.

life forms. The swing between either the universe as a complexity of material relations with no transcendent referent and human beings as the instance of a pinnacle of observation—we know of no other observers than ourselves on this planet or of its place in the cosmos. Cosmogonies, creation stories, present constructs beyond the horizon of common human experience—this is a characteristic of prophetic texts whatever their genre. One may have an intellectual aversion to such models that would claim universal validity about the universe. The biblical cosmology of the creation narrative, particularly of Genesis 1, holds a singularly strong place within the scriptural canons of the world. The two narratives will be told, but there is a natural tendency to want to see them converse, as it were. One way is to detect in the biblical narrative, spaces through which to behold the scientific one. The ideal place, this paper contends, is in the passages which speak of the origination of life—plant, animal, and human—and precisely how the text indicates the first occurrences of life.

In the creation story we may observe traces of reference to causal agency connecting human beings with God and the created environments that God caused to engender life. This is asserted in light of severe problems in the history of harmonization of cosmology and creation narratives. Although the relationship between “religion and science” continues to be a tortured one,³ it is regarded here as part of the larger modern configuration of the “promise of cooperation between science and literature.”⁴ Indeed, in basic ways this modern relationship has been a war over pedagogy in terms of what is necessary for the cultivation of humanity and the formation of responsible human beings. A strange polarization has resulted between anti-theological cosmological narrativists and anti-science young earth narrativists. Rejection of scientific narrative is not quite as strange and retrograde when seen in light of the opposite in rejection of theological narratives. The two strategies are flip sides of rational problems from over-simplification: reductionism down to totalizing scientific explanation or reductionism up to totalizing theological explanation. Both “sides” have correlative problems of reading the perspectival other because of a penchant for singular models of explanation. Both sides tend to ignore the

3 Interestingly, elite scientists tend not to regard religion and science as being in conflict, cf. Elaine Howard Ecklund and Jerry Z. Park, “Conflict between Religion and Science among Academic Scientists?” *Journal for the Scientific Study of Religion* 48, 2 (June 2009): 276–92.

4 Alexander Spektor, “The Science of Poetry: Poetic Process as Evolution in Mandel’shtam’s ‘Conversation about Dante,’” *Slavic Review*, 73, 3 (Fall 2014): 471–93, p. 471, citing Bergson’s anti-Darwinian narrative of non-comprehensibility of any humanly constructed theory of everything, pp. 478ff.; cf. Andrew Gregory, *Ancient Greek Cosmogony* (London: Bloomsbury Academic, 2013).

problem of assuming that everything in human knowledge must come under a single unifying theory, even though the sciences themselves rarely have overlapping theoretic bases, as in biology and the social sciences.

When theories get really big, like cosmology, they begin to look a lot like theologies—even if they are materialist accounts. Richard Dawkins, for example, has found that the complexity of genetic natural adaption is so inexplicable he must utilize William Paley’s “Natural Theology” as a narrative framework after stripping it of all transcendent referents—but reductionist theology to the point of atheism is still theology.⁵ All-encompassing or totalizing narratives of agency that exclude reference to divine agency are nevertheless replete with metaphors without which humans cannot reason let alone educate about the cosmos. Indeed, eternal concepts such as “punctuated equilibrium” no more prove God’s absence than Paley earlier proved God’s distant presence.⁶ For Dawkins, a “Darwinian worldview” has to be made the only viable basis for a correct cosmological model⁷ after editing out the transcendent references.

Theologians, both scholarly and popular, have important things to learn from scientific cosmological narratives. At the same time, many are wary of the faults of scientific culture in the twentieth-century, e.g., perceived ethical failings engendered by “scientific” support of totalitarian systems. And then there are the many lesser offenses of reducing all human phenomena to evolutionary bases, particularly human psychology and its possibility, as well as spirituality and religion beyond pejorative terms of primitive human perception and maladaptive behavior. Such failures of scientific reasoning, as Gantt states, do not appear to recognize that

... there is large body of scholarship demonstrating that the subject matter of the social sciences, in particular psychology, cannot be adequately accounted for by either the methods or the metaphysics of the natural

5 Richard Dawkins, *The Blind Watchmaker* (New York: Norton, 1986).

6 Myrna Perez Sheldon, “Claiming Darwin: Stephen Jay Gould in Contests over Evolutionary Orthodoxy and Public Perception, 1977–2002,” *Studies in History and Philosophy of Biological and Biomedical Sciences* 45 (2014): 139–47, p. 144.

7 It is important to note that throughout the 19th century scientists often gravitated to Platonic notions of divine design of intelligences in nature, sustained by Paley’s work on natural theology and divine evidences, assigned to students at Harvard and other leading institutions; cf. David K. Nartonis, “Louis Agassiz and the Platonist Story of Creation at Harvard, 1795–1846,” *Journal of the History of Ideas* 66, 3 (July 2005): 437–49, p. 448; also, Kurt Anders Richardson, “Deistic Distance: The Shift in Early Modern Theology from Divine Immanence to Divine Design,” *Models of God and Other Ultimate Realities*, ed. Jeanine Diller (New York: Springer, 2013), 223–41.

sciences....—no matter how many findings of no matter how many such sciences might be brought to bear....Indeed,...integrating the social sciences with the natural sciences in the way that most evolutionary social scientists suggest not only fundamentally misunderstands the nature of the subject matter of the social sciences, but also mistakenly presumes a basic conceptual unity among the natural sciences that does not exist.⁸

It has often been said that a believer's deeply formed faith can endure the modifications required by scientific reasoning—but this is not the case if the “reasoning” is really just a reductionism of all phenomena to a naturalistic theory since, the believer may be looking for some kind of rational connection between creation and cosmological narratives. From the other side, a scientist who has no clue as to how theological narratives carry explanatory value must also learn a naturalistic bent for making meaningful connections with these narratives. Although there is great interest in containing notions of everything with a single theory,

The problem here is that evolutionary accounts of the origins and nature of human behavior can never rise above the metaphorical because they are in principle trying to account for phenomena (culture, religion, intentions, emotions, etc.) which have no material—and, therefore, no genuinely mechanical—causal referents.⁹

In order to reflect responsibly about our existence human beings assemble many accounts and hold them together. Simplistic binaries of “religion or science” simply will not do.

The role of criteria in accounts of human origins should be less a matter of conformity to a specific logical structure and more a matter of heuristic constraints about how not to construct a scenario. Central among these should be that evolutionary theory cannot explain existing patterns of social relationships.

Evolutionists must be acutely sensitive to evidence suggesting that terms and categories that seem so “natural” to them may be meaningless with respect to the past. Evolutionary scenarios should be constrained by existing morphological, ecological, historical and cross-cultural data. For researchers on human evolution, this means a multi-disciplinary, problem-centered approach

8 Edwin E. Gantt, Brent S. Melling, and Jeffrey S. Reber, “Mechanisms or Metaphors? The Emptiness of Evolutionary Psychological Explanations,” *Theory and Psychology* 22,6 (2012): 823–41, p. 829.

9 Ibid., 834.

needs to take precedence over disciplinary interests. If it is human nature to construct human nature, these could well be the most difficult guidelines to follow—not because origin myth-making is “innate,” but because science and society collude in their construction.¹⁰

One could say that the problem with single-theory, evolution-based scientific reasoning is that it is far too rudimentary for explaining human thought and behavior. Human sciences and communication change the scientific frame of reference; the narrative scope changes and the philosophical and theological dimensions become more visible for what they are in human communication.

2 Narrative Meaning and Ethics

In the cultural discourses of philosophy and ethics, narratives (whether theological or scientific) that convey meaning and ethical commitment for human communities are now often described approvingly as “myth”¹¹ (which, nevertheless, remains a contested and never wholly adequate term). Among the Abrahamic monotheisms and their many interpretive forms, “creation narrative” depicts the fashioning of an anthropocentric cosmology by a single divine actor. But the one God is quickly de-centered from the scriptural theater of creaturely relations—signaled early on by the appearance of created agents of creation. The many intertextual employments of creation narrative by scriptural authors and of the early traditions are compelling at least at the ethical level—they are incomparable vehicles for conveying purpose and moral obligation to other human beings and to the earth itself. But the contribution is not merely ethical, the creation narrative also supplies the much needed perspective of a universe, an integrated system (if in fact that is what it is) of natural laws. In a very important sense, the monotheism of the creation narratives corresponds to the non-theological disciplines of scientific cosmology. Not only is science not possessed of the competencies for creation narrative,

10 Linnda R. Caporeal, “Of Myth and Science: Origin Stories and Evolutionary Scenarios,” *Social Science Information* 33, 1 (1994): 9–23, pp. 19–20.

11 Indeed, whether in scientific publishing or pedagogy, metaphors and analogies abound, e.g., Sven Hroar Klempe, “Mythical Thinking, Scientific Discourses and Research Dissemination,” *Integrative Psychological and Behavioral Science* 45, 2 (2011): 216–22; John McGowan-Hartmann, “Shadow of the Dragon: The Convergence of Myth and Science in Nineteenth-Century Paleontological Imagery,” *Journal of Social History* 47, 1 (2013): 47–70; Gilles Bibeau, “What Is Human in Humans? Responses from Biology, Anthropology, and Philosophy,” *Journal of Medicine and Philosophy* 36, 4 (2011): 354–63; Brian Woodcock, “‘The Scientific Method’ as Myth and Ideal,” *Science and Education* 23 (2014): 2069–93.

but it is better when it can bracket out the transcendent for its human based scientific interactions with the material universe. Indeed, in a similar way that modern philosophy has largely accepted a similar division of labor or “demarcation” eschewing the divine referent not only for the sake of the demands of competency but also for the sake of a cleaner philosophical practice: attending to the characteristic of human cognition and the world as humanly cognized.¹² Single theories supplanting one or the other narrative domains run up against the “division of labor” between scientists and theologians, where their narratives have an authoritative grounding as to their content and conveyance.

Perhaps the greatest modern challenge has been the rise of a kind of literary Darwinian apologetic associated with “naturalism”¹³—reflecting various intellectual strategies of exclusivity, foreclosing of any reference to God, divine causation, or human uniqueness. Particularly difficult in modern discourse has been the requirement to rebut Humean arguments against traditional doctrines as “the products of the operations of the human imagination, through the effects of custom.”¹⁴ Scientific cosmologies reason backward through inferences derived from larger hypotheticals, or extracted from what are believed to be fundamental conditions in the cosmos. Rooted historically in astrology and “natural philosophy,” those who are competent to venture into cosmology and its narratives seek to add incrementally to its interpretations of data with reference to age, stellar events, and invariably the conditions by which earth and its life forms, particularly of the hominid type, came into being.

The fascination with origins is rooted deeply in the human search and theorization about identity and purpose of the human being and the universe itself. The Genesis stories (chs. 1 and 2, 3) are “canonical” in ways that for centuries, continuing to the present and likely beyond, exert extraordinary force

12 The temptation to regard one's own discipline as a wholly adequate explanatory paradigm shows how difficult this matter can be, cf. Robert Pennock, “Can't Philosophers Tell the Difference between Science and Religion? Demarcation Revisited,” *Synthese* 178, 2 (January 2011): 177–206.

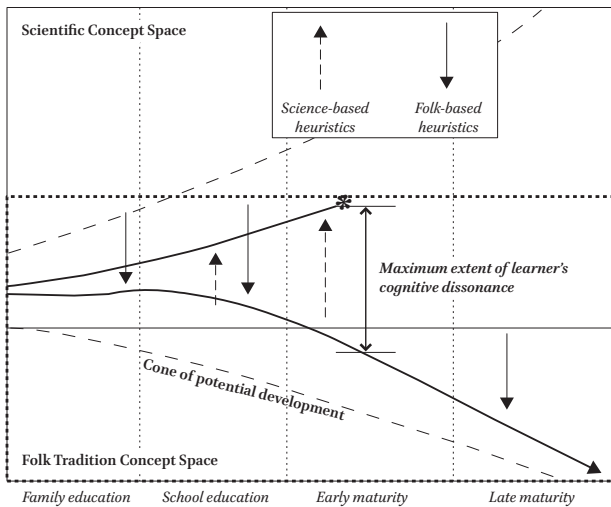
13 With naturalism, ethics is a product of communicative action and negotiating human limits, which means that creation narrative becomes part of that communicative process. Cf. David Owen, “Aristotelian Naturalism and the History of Ethics,” *Journal of the History of Philosophy* 52, 4 (2014): 813–33; one possible, but frustratingly partial way of attempting a single theory is to adopt an apophatic theology of creation: Karen Bray, “A Pantheology of the (Im)Possible: Reading Deconstruction in Ecstatic Naturalism and Ecstatic Naturalism in Deconstruction,” *American Journal of Theology and Philosophy* 34, 1 (2013): 35–48.

14 Paul Russell, *The Riddle of Hume's Treatise: Skepticism, Naturalism, and Irreligion* (Oxford: Oxford University Press, 2008), 142.

in not only the Abrahamic imaginations of believers but also wherever they have been embraced as rudiments of public or civil religion.¹⁵ As such they are sources of measurement for self-esteem, virtue, and orientation in the world. They stand behind, validating notions of Noahide law,¹⁶ natural law, and senses of the providential guidance of the world of all peoples, beyond the plans and stratagems of human beings.

The mythic dimension of narrative is signaled by the use of totalizing metaphors and functions quite similarly incosmology and theology. One possible way for cosmological narrativists to be freer from the trappings of theology

- 15 Although the cultural binary: science “or” folk religion is too radical a binary distinction to properly capture differentiated theological thinking, it is helpful to show how virtually any ordered human practice evidences rational frameworks, including young earth creationism, cf. John S. Wilkins, “Are Creationists Rational?” *Synthese* 178 (2011): 207–18; this graph is perhaps useful for understanding the proclivities of scientific and theological beliefs:



This figure charts how “cognitive dissonance exceeds the individual learner’s tolerance limit, then the least deeply embedded of the divergent epistemic sets will be extinguished, forcing a radical revision of prior solutions. The asterisk represents the point at which cognitive dissonance exceeds a tolerance limit for that learner, and commitments revert solely to the other trajectory”, p. 215.

- 16 Cf. David Novak, “The Universality of Jewish Ethics: A Rejoinder to Secularist Critics,” *The Journal of Religious Ethics* 36, 2 (June 2008): 181–211; Marc Hirshman, “Rabbinic Universalism in the Second and Third Centuries,” *The Harvard Theological Review* 93, 2 (April 2000): 101–15; Gary A. Anderson, “The Status of the Torah before Sinai: The Retelling of the Bible in the Damascus Covenant and the Book of Jubilees,” *Dead Sea Discoveries* 1, 1 (April 1994): 1–29.

might be to attempt to abandon the whole notion of “origin” or any ontological account of the universe as beyond the competency or at least the tasks of science—to abandon any kind of boundary statements relative to the universe.¹⁷ For scientists and cosmologists in particular, this would mean no longer doing a kind of naturalistic apologetics as in positing an eternal “steady state” or “punctuated equilibrium”; that all such questions of ultimacy are not of scientific interest or competence. The human being is a composite of many, sometimes competing interests, and if it wants to do ultimacy in terms of existence, ultimate causation, purpose, or meaning, other than to detect those areas of the brain and the genetic correlates to rudimentary features of human reasoning, if such questions are pursued, one is simply no longer doing scientific but kinds of “theological” reasoning as to ultimates, transcendence, and metaphysical reasoning. Those who do not bother about origins, if only to put at bay the authority claims of the religions that employ them for public influence, have at times claimed that rationality requires no actual information or data or knowledge of nature to be derived from these stories. Therefore, it is concluded, to be oriented in any material way to the world through beliefs derived from creation stories constitutes an irrational leap and also an irresponsible relationship with that world. The approach of this paper is oriented to a recognition that rationality operates in many different ways and forms that human beings acknowledge and decipher in their various relations with one another. The claim would be that many rational persons seek to do rational readings of cosmological and creational narratives as complementary, though with only the most general overlap. Because the appearance of life in its descending forms is a matter of extensive geological time that seems to correspond to cosmological time extensions, what is needed is not competing narratives but rather narrativists that are open to one another—since it is obvious that there are readers of both narratives that believe the two sources are compatible.

3 Agency in Genesis 1

In the first chapter of Genesis, we find references to the earth, its water and land, which are depicted as created agents of creation. Conspicuously, however, none of these agencies is anthropomorphized as in other ancient cosmogonies. Interestingly, the overlap with the ancient cosmogonies comes

¹⁷ A good example of what this might look like: Stig Børsen Hansen, “Metaphysical Nihilism and Cosmological Arguments: Some Tractarian Comments,” *European Journal of Philosophy* 20, 2 (2012): 222–42.

a little later in Genesis with the genealogies of heroic humans.¹⁸ Genesis presents a model of creation more like the Stoic who presented a biological model of creation rather than one mixed with technological characteristics in Plato's *Timaeus*.¹⁹ That the universe has a divine origin makes one a kind of "creationist"—among whom Darwin counted himself.²⁰

There are singular features that make the creation story of Gen 1 the origins narrative of choice. God (as in Jesus' special use of "gardener," *ho geōrgos*; John 15:1), "plants" and cultivates the creaturely world (cf. Gen 2:8, the God who "planted," *ephyteusen*) out of its original formlessness and emptiness. This earth will team with life and vegetation over which he will place its ruler, fashioned in his own image, capable of subduing and nurturing every other living thing. The cosmology of the narrative is symmetrical, a kind of perfection concluded with Sabbath, and the reverse order of the creation process implies a hierarchy of covenantal value where the last will be first. In this scenario, the entire earth is a garden overseen by humans, who together display the divine image as co-rulers, responsible for all. Unlike "pro-creation"—the animate world does not arrive ready-made—which is given inherently to animate life, the inanimate world does not beget new life, but this is not indicated in Gen 1:11, 20, 24. God the Creator created all things that are not God (cf., Ps 104:6; Prov 8:22–26; 2 Macc 7:28a; John 1:3; Rom 4:17; Heb 11:3b).

A most conspicuous element early in the creation narrative is that the earth's actual creation is nowhere stated but that it was *tohu wa bohu*, "formless and empty" (Gen 1:2), each day bringing with it elements that come through a divine passive as Word of God narrates Word of Creation. Like the creation psalms and sapiential cosmologies of *tanakh*, the story of original creation as *ex nihilo* is a brilliant monotheistic gloss on the text—not based strictly upon the vocabulary of the story but on its sparseness and directness—that is forever likely to be seen as its overarching aim. There is a reason why a theory of a prior fall was posited by various interpreters: the formlessness and emptiness of the earth result in its original fall of some kind that is only alluded to in the text—if there is an allusion in the text. Basically the implication is not of "either, or" but likely of "both, and." Pre-existing material does not mean co-eternally

18 As persuasively argued in, Bruce Loudon, "Iapetus and Japheth: Hesiod's Theogony, *Iliad* 15.187–93, and Genesis 9–10," *Illinois Classical Studies*, 38 (2013): 1–22.

19 Cf. R. Salles, ed., *God and Cosmos in Stoicism* (Oxford: Oxford University Press, 2009).

20 Darwin posits a primal organism from which all organisms descended. He is most interested to posit that God is the source of all laws of nature, that they produce stable forms of life in order to realize their potential: Chris Cosans, "Was Darwin a Creationist? Perspectives in Biology and Medicine," 48, 3 (Summer, 2005): 362–71, p. 363.

existing material. Before we recoil at the early introduction of a monotheist hermeneutic, we must recall that the great rival narrative of creation is based upon a notion of divine perfection that is never without that which belongs to God. Since everything belongs to God in his timeless perfection, nothing is added or subtracted. This is according to a rigorous logic of perfection, much of which apologists and theologians attempted to impose upon the biblical narratives in the form of doctrinal norms. In the end, however, neither Jewish nor Christian interpretive communities could bring themselves to assert with the ancients that the world, while infinitely inferior to God, was nevertheless co-eternal with God. The creation narratives could not be wrested from their own peculiar doctrine of temporal beginning of all that is not God, since he originated everything *ex nihilo*—whether in two stages or one. What is determinative is not to rely on another metaphysical framework for interpretation of the creation narratives as if they are lacking in one. The creation narratives contain their own metaphysic, based upon inferences from their foundational metaphors. The problem with the classical tradition is that it presents a rival metaphysic of a universal ontology of time in eternity, changing form within unchanging substance—every real thing is co-eternal with every other real thing. In contrast, the creation narrative posits an ontological distinction between creator and creature; temporal, created things are real things. It is the exclusive the capacity of the Creator to create a true *novum* within his eternal temporal being, created in time and with an absolute beginning.²¹

When viewed as an absolute *novum*, novelty or new existence, in relation to God who is eternally existent, so argued monotheistically, the creation is said to be *creatio ex nihilo*,²² but how does “creation out of nothing” function

21 This is certainly the sense of the metaphysical implications of the creation conveyed by the verbal aspect (aorist) that points to timeless divine action. Cf. Jonathan Yovel, “The Creation of Language and Language without Time: Metaphysics and Metapragmatics in Genesis 1,” *Biblical Interpretation* 20 (2012): 205–25.

22 The immense literature on the subject displays continuous debates and innovative applications, e.g., Virginia Burrus, “Nothing Is Not One: Revisiting the *ex nihilo*,” *Modern Theology* 29, 2 (2013): 33–48; M. Lincoln Maya and A. Wasser Avi, “Spontaneous Creation of the Universe *Ex Nihilo*,” *Physics of the Dark Universe* 2(4) (2013): 195–99; John Webster, “‘Love is also a Lover of Life’: *Creatio ex Nihilo* and Creaturely Goodness,” *Modern Theology* 29, 2 (2013): 156–71; Ryan Duns, “The Lord Has Made All Things: *Creatio ex Nihilo* and the Ecological Imagination,” *Contagion: Journal of Violence, Mimesis, and Culture* 21, 2 (2014): 15–21; Paul Gavriluk, “Creation in Early Christian Polemical Literature: Irenaeus against the Gnostics and Athanasius against the Arians,” *Modern Theology* 29, 2 (2013): 22–32; Claudia Welz, “*Imago Dei*,” *Studia Theologica—Nordic Journal of Theology* 65 (2011): 74–91.

narratively? One problem with *ex nihilo* creation²³ is that the phrase is intentionally content-less as a kind of place holder in the interpretations of the narratives. Neither from God's own substance nor from some co-eternal substance did God create everything that is not God. Sometimes it could be said that God is eternally self-generating because of some perfection that is greater according to livingness than a static perfection. In some sense perhaps the model implies that everything having to do with existence, including becoming, is attributable to the eternal divine life in its livingness, but this may create more problems than it solves. The place-holder function of *ex nihilo* is a practical one: no formulation of the co-eternity of the world doctrine can be posited. There are implications regarding the one and only God from absolute sovereignty over all things, but the greater argument is to the incompleteness of human knowledge based upon the limitations of revelation to the human. Whatever has not been revealed, including the *ex nihilo* creation, is perhaps best interpreted as something like: "not known" even "not knowable." This does not answer anything like the conjecture that *creatio ex nihilo* is a product of sovereignty thinking in the political realm as much as in the theological, and then to perceive a correlation between the traditional, Abrahamic doctrine and Big Bang Theory, where an astronomer of some note sounded an alarm about too much support for religion.²⁴

The creation narrative opens with the earth already existing (Gen 1:2, "the earth was," *wəhā'āreṣ hāyāṭāh*), whose mode was "formless and void" (*tōhū wābōhū*). It is not until God shapes²⁵ the earth's primary components into bodies of land and bodies of water that it becomes capable of participating in acts of creation. The Spirit of God is "moving on the face of the waters" (*mā-ra-ḥe-ṭēṭ*

23 In one recent attempt to discuss cosmogony in revelation and cosmology in science, inadvisably, a political hermeneutics is brought to bear on the monotheistic hierarchy of empire, in a very fine example of feminist theology: Mary-Jane Rubenstein, "Cosmic Singularities: On the Nothing and the Sovereign," *Journal of the American Academy of Religion* 80, 2 (June 2012): 485–517.

24 Ibid., 487f.; cf., Kirk Wegter-McNelly, *The Entangled God: Divine Relationality and Quantum Physics* (New York, NY: Routledge, 2011); Janet M. Soskice, "Creatio ex Nihilo: Its Jewish and Christian Foundations," in *Creation and the God of Abraham*, ed. D. D. Burrell, C. Cogliati, J. M. Soskice, and W. R. Stoeger (Cambridge, UK: Cambridge University Press, 2010), 24–39.

25 In the verbal syntax of creative action, the Hebrew verbs in the narrative (Hip'il and jussive) denote the causative function of created agencies by the Creator, so Toni Craven and Mary Jo Kaska, "The Legacy of Creation in the Hebrew Bible and Apocryphal/Deuterocanonical Books," in *Spirit and Nature: The Study of Christian Spirituality in a Time of Ecological Urgency*, ed. Timothy Hessel-Robinson and Ray Maria McNamara (Eugene, OR: Wipf & Stock, 2011), 32f.

‘al-pə-nê ham-mā-yim; LXX: *epephereto epanō tou hydatos*). Rather than creating the waters or creating life in them, this seems to be the final step in creating creative agencies—given that earth would already possess this capacity from the Creator. The narrative most extensively presents the Creator ordering light and darkness, “separating” them in order to calendarize creation according to a Sabbatarian, day/night schema, sequencing phenomena for the sake of this organic *oikonomia* (none quite so exquisitely as photosynthesis). This is the beginning of human observation that is the telos of the physical universe—self-reflective organisms, uniquely, human. Wherever we were, human beings are no longer, so that they cannot justify to themselves that they belong to the “animal kingdom”—post-animal as they are. When God begins to furnish the world with orderly natural affairs, he speaks and his word creates: “let there be . . . and there was . . .” (*yə-hî . . . way-hî*, v. 3). Having created the light of creation, three times the text points to the Creator’s action that “separates” (*-yab-dêl*, v. 4, cf. vv. 14, 18) the light from the darkness (the creation of light has not evacuated darkness from the cosmos) and then the land from the waters above and below it (vv. 6–10). An utterly simple but fundamental reality is declared here: identity between the Word of God and the Work of God, “light” (*‘ō-wr*)—not only God’s revealed nature but also created nature. The two are compatible but not identical—one created, the other uncreated. The reader can see how the mediatorial role of the Word was part of ancient interpretation (cf. “nothing was made except by him” John 1). The luminaries are created after vegetation: “let there be lights” (*yə-hî mə-‘ō-rōt*, v. 14f.), leaving the reader to wonder about the sources of created light for plants prior to the creation of the sun, moon, and stars, which are here accorded the role of measuring time in multiples of days, to months, to years, but especially as “signs” (*lə-‘ō-tōt* of God’s special action, cf. 4:15; 9:12f.; 17:11) “and seasons” (*ū-lə-mō-w-‘ā-dīm* of God’s appointed times, cf. 17:21; 18:14; 21:2). The purpose of the luminaries is geocentric, repeating twice: “to give light upon the earth” (*ə-hā-‘îr ‘al-hā-‘ā-reš*, v. 15ff.).

With the ordering of boundaries, vegetative life is the first that the created agency of the “let earth bring forth” (*taḏ-šê hā-‘ā-reš*; v. 11), and indeed “the earth brought forth” (*wat-tō-w-šê hā-‘ā-reš*, v. 12) especially that vegetation that furnishes food whose seeds can be cultivated. The previous verses convey the divine fiat as none other, but instead of direct creation by fiat, the agency—not mere instrumentality—of the earth is immediately presented. Finally, on the day prior to the creation of the human, God causes the waters to generate life: “let the waters abundantly bring forth the moving creatures” (*yīš-rə-šū ham-ma-yim še-reš*, vv. 20f.; cf. 7:21; 8:17; 9:7). Divine agency is simultaneously affirmed “and God created” (*way-yīb-rā ‘ē-lō-hîm*, v. 21). The water and the earth

are created co-creators. God declares “let the earth bring forth” (*tō-w-šê hā-’ā-reš*, v. 24) every kind of land creature, followed by a similar reference to God as agent of creation (v. 25). All things are created by God, including those of earth and water he harnessed and formed into creative agencies by which he creates living things. Augustine was one of the early ones to discern that there is no sense of time duration for the processes²⁶ whereby vegetation or life would be “brought forth” by the earth. Notice also that they are not in some sense brought forth “from” as in the formation of Adam in the second narrative (2:7). The animals are begotten by the earth, as is the vegetation by which they live. In the matter of the generation of life, the earth and the waters are not autonomous, but they are the tools by which God creates.

4 Creation Queried and Querying

The great question of the text is what it contains that informs the tradition with respect to its canonical reading for generations to come and in our own generations now and in the near future. The connection with natural science is particularly tricky, since sciences of cosmology and geological history appeared only recently. What this essay will not do is to attempt to trace the connection between an “evolution-friendly” text and actual models of revelation. Biological scenarios, like those portrayed by Stephen J. Gould, based upon “two magisteriums” (science and religion), do the theoretical modeling.²⁷ Gould does this through serious projections from the data on the already stretched date of macro-environments to scenarios of overlapping macro-environments, to the vast geological “ages” from Paleozoic to the contemporary Holocene (now in the “Anthropocene”?). What we do have with the creation story of Genesis and cosmologies in the main is work on “the observable universe”—the cone of visibility from any position on the earth down to sub-atomic particles. Such reasoning from natural science is quickly detached from experimental data and occupies an “underdetermined” but very philosophical role, not unlike what the creation narratives work with.²⁸ Some kind of philosophical realism is entailed in cosmological beliefs (such as the Big Bang theory) that the

26 Augustine, *Civitas dei*, XI, 16.

27 Cf. Stephen Jay Gould, *Rocks of Ages: Science and Religion in the Fullness of Life* (New York: Ballantine, 1999).

28 Jeremy Butterfield, “Underdetermination in Cosmology: An Invitation,” *Supplementary volume—Aristotelian Society* 86 (2012): 1–18.

... best theories are good enough that they are mostly true. That is, they are supported by enough detailed and mutually independent lines of evidence that we believe them. But this realism does not imply that we can, now or ever, know or have warranted belief, or even gather any evidence, about all parts, or even every aspect of any single part, of the universe.²⁹

The creation narrative in Genesis and recapitulated intertextually throughout scripture cannot be extracted to form scientific models of the cosmos. The text contributes vitally at a metaphysical level, but it is in competition with other ancient cosmologies and ontologies such as Aristotle's, which posited the eternity of the world.³⁰ We can think in terms of theological cosmology perhaps, and the fundamental binary of God / world relation, or better, Creator / creature. The link in this relation is the mirroring dimension of the human as created in *imago dei*. But this is a narrative structure only that is also suggestive of law and the ordering of created relations that mirror the divine ordering of created relations. The human being is a custodian but is not a co-creator as are the earth and waters. Like God, the human being exercises lordship over the creation, though living creatures were in no way engendered by human agency. Part of the inheritance of the *creatio ex nihilo* is the monotheistic determination of the creation narrative. Whatever detailed components of this doctrine are to be maintained, what it has meant in the history of doctrine is the distinction between God, who is without beginning, and all that is not God and therefore non-eternal, finite, and contingent upon the divine will for the created order. Did God generate a chaotic array of "raw materials" out of which he created cosmos? The affirmative is only inferentially suggested by the text.

Creation narrative is part of the great Abrahamic monotheist framework that was gradually being worked out in the canonical narratives and didactic passages. This monotheism stretches through the NT and the Qur'an as they interpret these discourses. These texts still do not warrant looking at them from the perspective of cosmological history—that is the task of measurements according to their traces—strata of all sorts. We are thinking taxonomically as well. Indeed, the taxonomic dominates over the chronologic of the

29 Ibid., 9.

30 The pressures on Thomas Aquinas and his contemporaries to adopt the classic ontology were so great and the reading of *creatio ex nihilo* so entrenched that cosmological eternity and related doctrines were dogmatically suppressed by the magisterium of the Church. Cf. J. M. M. H. Thijssen, *Censure and Heresy at the University of Paris, 1200–1400* (Philadelphia: University of Pennsylvania, 1998); John F. Wippel, "The Condemnations of 1270 and 1277 at Paris," *The Journal of Medieval and Renaissance Studies* 7 (1977): 169–201.

text. It is a commonplace to point out that light precedes the light emitting celestial bodies; other dimensions are unexpectedly out of what would be considered a strict taxonomic chronology from lower to higher forms; or, according to ancient hierarchies, from higher to lower. The Sabbatarian orientation of the “days of creation” is unmistakable: the human shall rest from making things on the seventh day precisely because the Creator did so. The universe is to be read according to a moral norm, not according to a metaphysical norm. The creation narrative is not about a cosmological hierarchy that distinguishes between the eternal and the temporal, divine action and human action, or that which belongs to God and that which belongs to the human. It does that, but much more; it demonstrates the fundamental purpose of the human as *imago dei* in particular moral or ethical acts of *imitatio dei*. As Heschel so profoundly stated: “The idea of man having been created in the image of God was interpreted, it seems, not as an analogy of being but as an analogy of doing . . . As He is merciful be thou merciful.”³¹ This point is an ancient one, arising already from the 2nd century BCE, *Jubilees*, which, while not declaring *creatio ex nihilo* and narrating God’s creation of multitudes of angelic beings,³² does proclaim *imago dei*.

The human relation to animals is clear: they partake of the same breath and nourishment that the earth provides, also through the creative agency of the earth. No less divine acts of creation, the engendering of plant life as food stuffs of animals and humans ought to lead the knowing human being to acknowledge the linkage of all things, not only in the dependency upon God and God’s earth for everything (Ps 8), but relations that entail a mastery of all things. As above, these relations take very different forms: mastering the seas by navigation is very different than mastering a horse with bit and bridle. But how is this like divine action?

There is an important difference between instrumentality and agency. In causation, instrumentality is ancillary to causative action whereas agency is causative, with or without instrumentality at its disposal—one might say there is not causative action without instrumentality. The distinction is clear, instruments of divine or human actions do not possess in themselves anything of causative action, particularly because they are not responsible decision makers. Instruments are neither generative nor directive of force; in this case of living-ness that breathes, eats, and procreates. Yet, this position from

31 Abraham Heschel, “Sacred Image of Man,” *The Insecurity of Freedom* (New York: Schocken, 1975), 150–67, pp. 160–161.

32 A. Piñero, “Angels and Demons in the Greek Life of Adam and Eve,” *Journal for the Study of Judaism* 24, 2 (1993): 191–214, pp. 211ff.

the viewpoint of strict monotheism could be said “to inculcate the potentially dangerous impression that the waters produced the creatures which live in them.”³³ It is clear from the historical context of the earliest Christian communities that Jewish interpretation of *imago dei* was very limited, fearing inferences of polytheism. Much more, the focus is upon human dominion over creation. The story of course has the election of Israel embedded in the divine acts of creation.³⁴

As above, there is some kind of fundamental condition the narrative conveys with respect to the formless earth and its water. Upon giving it light and order, both its elevations and the coastal boundaries, it is ready for its agencies for aquatic and terrestrial life. What is important here is that the created agency of nature creates an opening for engagement with evolutionary models of non-human life. It is not that the biblical narrative is utilized for scientific purposes or used as a proof text for an anti-scientific model but that creation is also about divine capacity to generate life in every living thing, including the living things by which they live. This taxonomic approach builds a creation model that highlights and then de-centers the one God, as the human being's relation to this environment mirrors God's relation to it. One salient feature of the role of the human being in this environment is a further distancing of the deity from the field of action, but without diminishing ultimate divine rule over all things (cf. Ps 8). The fields of the earth are for human action, not so much for the divine. God created all things and rules over them, but in a hierarchical where the human that gives the world its history. God's activities are limited to revelation, to what has been termed theologically “*Heilsgeschichte*.”³⁵ This is not meant as theologizing of history, but as history guided and only rarely punctuated by revelatory events. The sweep of biblical history is ultimately universal. Its eschatology is rooted in its protology, and the human occupies the field of action, only rarely visited by the divine for unique purposes. The creation story itself thus suggests this.

This is clearly history “from above” (John 3) in contrast to history of faith “from below,” which trusts in illumination in order to theologize both in terms of

33 James C. Vanderkam, “Genesis 1 in Jubilees 2,” *Dead Sea Discoveries* 1, 3 (Nov. 1994): 300–21, pp. 313–14.

34 Ibid., 314, 320.

35 Cf. Matthew Drever, “Redeeming Creation: *Creatio ex nihilo* and the *Imago Dei* in Augustine,” *International Journal of Systematic Theology* 15, 2 (2013): 135–53; Henry Kelly, “Adam Citings before the Intrusion of Satan: Recontextualizing Paul's Theology of Sin and Death,” *Biblical Theology Bulletin* 44, 1 (2014): 13–28; Dotan Leshem, “Oikonomia in the age of empires,” *History of the Human Sciences* 26,1 (2013): 29–51.

the knowledge of God and doing of the divine will according to the *imago dei / imitatio dei* connection of Gen1. The creation narrative is re-presented over and over again throughout canonical scripture until its protology merges with its eschatology as in John, Paul's doctrine of the two Adam's, and ultimately the book of Revelation. The earth as the habitation of human beings, indeed, many groupings of human beings (cf. Eph 1; Acts 17), is a place where sensitivity to its climates and geographical features only comes into widespread science-based consciousness in the 20th century, in its second half most of all. The earth is not a place divided between domesticated living spaces and enchanted wilderness, but a world of life worlds which include the human as an incomparably dominant species whose boundaries are determined largely by technological limitations, which are ever changing. This amounts to nothing less than a disenchanting of the world but does not spell a dispensing with theology in the least—indeed, far more theology is now being published and taught in a far wider venues than in the middle of the previous century. Instead, it is an adumbration of the original distance between Creator and creatures narrated in the Genesis story. But to think ethically about the environment itself—to consider the ecosystems of the earth theologically—is a recent development.³⁶ Ecology as a theological category amounts to a further realization of the creation mandate of Gen 1.

What is most crucial in the history of natural interpretation is the principle of natural selection. The challenge is holding to revelation and evolution simultaneously and understanding human limits for the divine purpose in any state of affairs.

God acts as primary cause giving being to an entity with one or more properties that bear a probabilistic, rather than deterministic, relation to antecedent secondary causes. The possession of this property by this entity will occur by chance on the level of nature but be determined in relation to God.

This opens up the possibility of a distinctive mode of divine action in the world. If God specifies some or all of what occurs by chance on the level of secondary causes, then this ongoing divine activity, operating within the limits of the lawful structures that God establishes and sustains, would continuously turn the course of events toward the realization of God's purposes.

The atheistic objector cannot show that the world includes evils that God ought to have prevented, but neither can the theist demonstrate that there are

36 Cf. Richard Bauckham. *The Bible and Ecology: Rediscovering the Community of Creation* (Waco, TX: Baylor University, 2010).

no such evils. We are left with an epistemic stalemate, and so the project of explanatory theodicy must remain incomplete.³⁷

When we ask, along the lines of biological and social science conversations, what can be determined biologically regarding human morality, we are likely never to be satisfied. One of the prime questions on this is the evolution of altruism: is it a determinant of individual or social values? In any case, what the “genetics” of a canonical narrative or origins like Gen 1 does is to show us how self-reference over time keeps exceeding what our biology dictates to us.³⁸

37 Thomas Tracy, “Evolutionary Theologies and Divine Action,” *Theology and Science*, 6, 1 (2008): 107–16, pp. 111, 112, 115; cf., Ted Peters and Martinez Hewlett. *Evolution from Creation to New Creation* (Nashville: Abingdon, 2003), chap. 3.

38 Oren Harman, “A history of the altruism—morality debate in biology,” *Behaviour* 151 (2014): 147–65.

The Evolution of the Consciousness of God and the Gospel of John

Randall C. Zachman

Alan Culpepper has admirably raised the question of how the recent understanding of the evolution of life impacts the Christian understanding of God in general, and the interpretation of the Gospel of John in particular. Whereas Culpepper focuses on the question of the origin and destiny of human life and the intelligibility of speaking of a Creator, this essay will pose a related question, having to do with the challenges of integrating the evolutionary history of the cosmos with the history that is narrated in Scripture regarding living in the presence of God. Can Christians bring the evolutionary history of life in the cosmos into their narration of life with God taken from Scripture? If they did, what difference would it make in their understanding of God? How would they interpret Scripture in general, and the Gospel of John in particular, if they saw human and cosmic life from an evolutionary point of view?

1 **The Challenge of Integrating Evolution with the Narrative of Scripture**

There is historical precedent for holding the distinct descriptions of the world in science and Scripture inseparably together, without undermining the discoveries of science or questioning the meaningfulness of Scripture. John Calvin was simultaneously interested in the recovery of Biblical languages and the classical liberal arts in the sixteenth century. As a consequence, Calvin was aware that learned pagans described the universe in a way quite different from the descriptions given in Scripture. For instance, Genesis describes the moon as the second largest body in the sky, whereas classical astronomers inform Calvin that Saturn is larger than the moon. Rather than eliminate the classical description of the universe by asserting the claims of Genesis, Calvin claims that Scripture is accommodated to the capacities of the unlearned, and is therefore uninterested in giving a learned description of the universe.

Here lies the difference; Moses wrote in a popular style things which without instruction, all ordinary persons, endued with common sense, are able to understand; but astronomers investigate with great labor whatever the sagacity of the human mind can comprehend. Nevertheless,

this study is not to be reprobated, nor this science to be condemned, because some frantic persons are wont boldly to reject whatever is unknown to them. For astronomy is not only pleasant, but also very useful to be known: it cannot be denied that this art unfolds the admirable wisdom of God. Wherefore, as ingenious men are to be honored who have expended useful labor on this subject, so they who have leisure and capacity ought not to neglect this kind of exercise.¹

Calvin will therefore ask what the accommodated meaning of Scripture is intending to teach us, without claiming that it competes with the discoveries of the learned. "Let the astronomers possess their more exalted knowledge; but, in the meantime, they who perceive by the moon the splendor of night, are convicted by its use of perverse ingratitude unless they acknowledge the beneficence of God."² However, Calvin always makes it clear that whenever there are two accounts of the world in play, he understands how the world actually works by means of the discoveries of the learned, and not by means of the teaching of Scripture. "He who would learn astronomy, and other recondite arts, let him go elsewhere. Here the Spirit of God would teach all men without exception; and therefore what Gregory declares falsely and in vain respecting statues and pictures is truly applicable to the history of the creation, namely, that it is the book of the unlearned."³ Calvin can do this because he is convinced that God is manifested by God's works, either as narrated in Scripture, or as more accurately described by the learned. The works themselves represent the powers or perfections of God to us, such as wisdom, goodness, power, mercy, etc. Our experience of the powers of God in God's works builds on the awareness of divinity God has implanted in every human being, so that we come to know God as the author and source of every good thing. Both Scripture and the learned explore these works and the powers of God represented therein, and it is the powers in these works themselves that manifest God to us.

Can we do today what Calvin did in a previous age, and hold together the two narratives of life in the universe, so that together they mutually enrich our awareness of the self-revelation of God in the universe? I am not sure that we can, as we face several challenges today that Calvin did not confront. To begin, the philosophical investigations of the learned like Pliny and Aristotle develop into the Newtonian method of science, whereby one seeks a natural cause for every natural effect. This makes it very difficult to speak of "the works of God" in the way that Calvin describes them, for Calvin thinks that God can

1 Comm. Genesis 1:6, <http://www.ccel.org/ccel/calvin/calcom01.vii.i.html>.

2 Ibid.

3 Comm. Gen 1:6, <http://www.ccel.org/ccel/calvin/calcom01.vii.i.html>.

do works in the world over against or even without any natural causality, as in the resurrection of Jesus. The problem is intensified by the history of the emergence of life, including human life. As Culpepper points out, the history of life on earth is inextricably united to the history of the cosmos. "Just as life's origin cannot be separated from the origins of the cosmos, so our destiny is inseparable from the cosmos" (13). Human life is produced by and bound to the history of the cosmos, linking us inextricably not only to all other life, but also to the most mysterious forces in the cosmos like dark matter and dark energy. We may never learn how life originated in the universe, but we know for certain that all of the elements that make life possible were produced deep in the core of giant stars billions of years ago. Had these stars not exploded, ejecting these elements into the universe, neither we nor any other living thing would exist. There is something awe-inspiring about this, in that human beings could be said to be the way the stars have come to see and understand themselves. But there is also something deeply humbling about this realization as well, in that we were created by cosmic forces over billions of years of history, and were not created at the beginning by a special act of God.

I think this is why Christians who take seriously the evolutionary history of life in the universe nonetheless rarely integrate this history into their understanding of God or Scripture. The scientific method eliminates using God as a cause to which one can refer to explain the works of the universe, and its assumption of a closed causal nexus makes it impossible to conceive of the direct intervention of God in the cosmos. Calvin was aware of the role that nature plays in the universe, and even says that it is possible to say that nature is God, provided it is said with a pious mind.⁴ But he was very disturbed by the way Aristotle sought to understand natural effects solely by natural causes, as he thought this eliminated God from the universe. Now that we know that all life is produced by the universe, we no longer need God in order to explain the origin of life, including human life. Culpepper notes that some make this claim today: "If creation and the emergence of life can be explained through evolution, then God is no longer necessary" (7). If God is not needed to explain the origin of human life, then it is hard to see how God can be portrayed as the cosmological goal of human life.

Both of these factors combine to produce deep existential anxiety in Christians. If the evolutionary history of life in the universe is accepted, we find ourselves alone in a cosmos without God, thereby evacuating our lives of the meaning that Scripture says they have, namely, that we were created by God to enjoy the presence of God. This existential anxiety is increased by the challenges that Culpepper notes evolution presents for us. To begin, we

4 Inst. I.i.5, <http://www.ccel.org/ccel/calvin/institutes.iii.vi.html>.

now know that it took ten billion years of cosmic history to produce life of any kind, and three billion more years to produce the forms of life with which we are familiar. What do we make of this theologically? Genesis and John speak of life appearing at the very beginning of God's works. We now know that life is very late in appearing, and human life appears much later than that, after more than thirteen billion years of cosmic history have elapsed. Does this not threaten to evacuate human life of any meaning or significance? How do we understand the ten billion years God was relating to a universe devoid of any life whatsoever?

The problem of meaninglessness is compounded by the sheer scale of the universe. We can now see back in time to catch a glimpse of what the universe looked like thirteen billion years ago, when galaxies were just beginning to develop. We now know we are on a very small planet orbiting an ordinary star in an ordinary galaxy, made up of billions of stars, which is itself one of billions of galaxies. The thought that there are more galaxies than there are stars in the Milky Way is impossible to comprehend, but at the very least, it makes human life shrink almost infinitely into insignificance. The anxiety this creates is not alleviated by the thought that there may be billions of planets in our galaxy alone that could support life, as this still means that human life appears not to have the intimate proximity to God that Scripture claims that it does.

Evolutionary history also presents challenges to our understanding of the place of suffering and death in the cosmos. Calvin echoed the consensus of the Christian tradition when he understood Paul in Romans 8 to be claiming that suffering and death came into the world through human sin and God's response to sin, and were not part of God's original work of creation. "It is then indeed meet for us to consider what a dreadful curse we have deserved, since all created things in themselves blameless, both on earth and in the visible heaven, undergo punishment for our sins; for it has not happened through their own fault, that they are liable to corruption. Thus the condemnation of mankind is imprinted on the heavens, and on the earth, and on all creatures."⁵ Whether or not we can still make the claim that God is the Creator, we now know that death was not introduced by sin into a universe originally lacking corruption. Rather, the evolution of life necessarily involves the suffering and death of all living creatures. As Culpepper notes, "Human life, with all its wonder and mystery, is therefore bounded by both space and time" (6). This means that the evolution of life is unthinkable without the suffering and death of all creatures, including human beings. This makes it very hard to conceive of how concepts like resurrection and eternal life can be understood,

5 Comm. Romans 8:21, <http://www.ccel.org/ccel/calvin/calcom38.xii.vi.html>.

for if evolutionary history is correct, without suffering and death, there is no life. This holds especially true for the evolutionary history of human beings. If there had not been five mass extinctions in earth's past, we would not have evolved to be here now. Most proximately, the space we currently occupy as earth's most dominant species was cleared for us by the terrifyingly random act of an asteroid colliding with the earth, which led to the mass extinction of the dinosaurs. Far from being introduced into the world by the sin of Adam, suffering and death play a fundamental role in the evolution of all life, including human life, and we would not enjoy the position we currently do had myriad species of creatures not died off completely.

In sum, the evolutionary history of life in the cosmos raises serious existential challenges to the meaning and significance of human life in relation to God when compared to the history of life narrated in Scripture. We are produced by a cosmos of unimaginable age and size, and we do not need God to explain the origin or destiny of such life. Indeed, human life could suddenly end with a mass extinction such as the one that greeted the dinosaurs, were another large asteroid to slam into our planet. The assurance of the presence of God would greatly help to address and even alleviate our anxiety in the face of such a universe, yet our understanding of the universe seems to leave us alone in the universe without God, as we do not need the Creator to understand the cosmos or the origin of life, including human life. This then presents us with our next question: can we speak any more about the possibility of the human relationship with God in a universe in which God the Creator is no longer necessary?

2 Our Understanding of God in Light of Evolution

Culpepper rightly poses the question of what the evolutionary history of the universe means for our understanding of God. He understandably turns to the intelligibility of the claim that God is the Creator in light of our understanding of evolution. "Can we still talk meaningfully about God in a way that is compatible with the evolutionary history of the universe?" (9). Culpepper addresses this question by returning to something like Calvin's understanding of the self-manifestation of God in God's works in the universe, appealing to Psalm 8, John 1, and Romans 1 in support (texts to which Calvin himself turns), in order to ask "how we are to understand God's activity in the world" (9). I am not sure that this is the most promising direction to follow, since evolution makes the origin and development of human life a product of the development of the cosmos, including the production deep in the core of giant stars of

the elements of which we are made. Turning to a theory of the activity of God in the universe may increase the anxiety that there may not be room in the cosmos for the activity, and therefore for the presence, of God. Yet in light of the deep existential anxiety described above, it is precisely the right understanding of the presence of God that we need to find, lest we find ourselves alone in a universe without God.

My own suggestion would be to turn from a theory of divine activity in the world to the evolution of human consciousness itself in order to reorient what we mean when we say "God." We have already noted how Calvin made this turn when he claimed that God had placed in every human being an awareness of divinity, which he also called a sense of the numinous, which forms the seed from which all religion grows. "Since, then, there never has been, from the very first, any quarter of the globe, any city, any household even, without religion, this amounts to a tacit confession, that a sense of Deity is inscribed on every heart."⁶ Calvin combined this sense of divinity with the self-revelation of God in the universe, but would it be possible to explore this sense of the numinous more fully, so that we could develop the reality of the presence of God on this basis, and not on the basis of God's works in the universe? Friedrich Schleiermacher made just such a turn in the nineteenth century, by rooting all human religiousness in the structure of human consciousness, and not in any external self-revelation of God in the universe. Schleiermacher claimed that as every human consciousness develops, it comes both to an awareness of the self in relation to the world, and to the awareness of a relationship in which the subject-object dichotomy is overcome, in what he called a form of "immediate self-consciousness," which we come to understand as our relationship to God. For Schleiermacher, our relationship to God does not come to us from the outside, by means of the works that the Creator allegedly does in the universe. Rather, our relationship to God is always already there in any and every human consciousness, waiting to be developed and strengthened by the right means. For Schleiermacher, this consciousness of God is not diminished, but is rather strengthened, by our increasing ability to understand events in the world in light of the closed nexus of natural causes and effects. God is not given to us from the outside, in God's actions in the world, but is rather given to us in a form of consciousness in which the distinction between self and the world is transcended, which Schleiermacher called the "God-consciousness."

Recent studies in neuroscience have apparently validated Calvin and Schleiermacher's turn to human consciousness to root our understanding of God, even if neuroscientists do not describe this consciousness the way either

6 Inst. I.i.3, <http://www.ccel.org/ccel/calvin/institutes.iii.iv.html>.

theologian did. We now know that human consciousness is produced by the brain, and that the brain is the most complex reality we have yet encountered in the universe. Without the brain, there is no human consciousness, yet we still have no idea how the brain produces consciousness, making our consciousness of ourselves an astonishing and as-yet unsolved mystery. "Neurology cannot completely explain how such a thing can happen—how a nonmaterial mind can arise from mere biological functions; how the flesh and blood machinery of the brain can suddenly become 'aware.'"⁷ Moreover, we now know that the brain not only mysteriously produces my consciousness of myself in distinction from the world around me, including my sense of my own body in space and time; but it also produces the consciousness of a reality that transcends both myself and the world, which unites all distinct reality into one, with no consciousness of self or other. "After years of scientific study, and careful observation of our results, Gene and I further believe that we saw evidence of a neurological process that has evolved to allow us humans to transcend material existence and acknowledge and connect with a deeper, more spiritual part of ourselves perceived of as an absolute, universal reality that connects us to all that is."⁸ In other words, evolution has not only produced the human brain, giving rise to the mystery of human consciousness, but this brain also produces the consciousness of a mystery that is deeper than the reality of myself in the cosmos. It turns out that evolution does not explain away our awareness of the intimate presence of God in our lives. Rather, evolution explains how our brains have evolved in a way that makes us aware of the presence of the mystery that we call God. Our brain also tells us that this mystery is more real than the reality of the cosmos, using the same method the brain uses to tell us of the reality of anything we experience in the world. Thus, "the mind's machinery of transcendence may in fact be a window through which we can glimpse the ultimate realness of something that is truly divine."⁹

According to neuroscience, there are two distinct ways that the brain's mechanism for transcendence can be activated. The first is by means of an active form of consciousness, which focuses on a particular object in the world as giving us access to the reality of this mystery. When attention is focused long enough, the brain's mechanism of transcendence is activated and strengthened, leading to the consciousness of the dissolution of the distinction between myself and this reality, usually conceived of in theistic ways.

7 Andrew Newberg, Eugene D'Aquili, and Vince Rause, *Why God Won't Go Away: Brain Science and the Biology of Belief* (New York: Ballantine Books, 2002), 32.

8 *Ibid.*, 9.

9 *Ibid.*, 140–41.

“In this way, neurology could explain the *Unio Mystica*—the Mysterious Union with God that characterizes the spiritual experiences of so many Christian mystics.”¹⁰ The other way is by means of a passive form of consciousness, whereby the mind is freed from all consciousness and thoughts of self and world. When this takes place over a long enough period of time, as in Mahayana Buddhist meditation, the mind comes to a form of consciousness that some neuroscientists call “Absolute Unitary Being,” in which there is no ego, and no God, but only the undifferentiated awareness of the unity of all things. “There would be no discrete objects or beings, no sense of space or the passage of time, no line between the self and the rest of the universe. In fact, there would be no subjective self at all; there would only be an absolute sense of unity—without thought, without words, and without sensation. The mind would exist without ego in a state of pure, undifferentiated awareness.”¹¹ These two forms of self-transcendence are not experiences of two forms of absolute reality, but are rather hierarchically related to each other in terms of how completely the practitioner accesses the brain’s mechanism for transcendence, with the passive method accessing Absolute Unitary Being more completely than the active method. “We believe that all mystical experiences, from the mildest to the most intense, have their biological root in the mind’s machinery of transcendence.”¹² In sum, the awareness of the intimate presence of God, in which God is experienced as being closer to me than I am to myself, is not made possible by means of a theory of the activity of God as Creator, but is rather made known to us by the mystical consciousness produced by our own brains, making the presence of God seem at least as real, if not even more real, as anything else of which our brains make us conscious. “A neurological approach, however, suggests that God is not the product of a cognitive, deductive process, but was instead ‘discovered’ in a mystical or spiritual encounter made known to human consciousness through the transcendental machinery of the mind.”¹³

We need not be anxious that the evolutionary history of the universe seems to deprive us of the presence of God, for that same evolutionary history shows us how our brains evolved to bring us to the consciousness of the presence of God, and to make possible our experience of union with God in this life. However, rooting our sense of the presence of God in the evolution of the brain requires a radical shift in our understanding of God, and the way we interpret the testimony of Scripture regarding the presence of God. Scripture itself

¹⁰ Ibid., 122.

¹¹ Ibid., 119–20.

¹² Ibid., 123.

¹³ Ibid., 133.

provides a precedent for such a radical reinterpretation of God's presence, in the profound change in the way Israel understands the presence of God before and after their exile to Babylon. Before the exile, Israel describes its experience of God's presence in very local and concrete ways. God delivered Israel from oppression in Egypt so that God could dwell with his people in the land of Canaan, ultimately in the Temple in Jerusalem. As Moses sings by the Sea of Reeds, "You brought them in and planted them on the mountain of your own possession, the place, O Lord, that you made your abode, the sanctuary, O Lord, that your hands have established. The Lord will reign forever and ever" (Exod 15:17–18). Israel sees itself as dwelling in its land with its God YHWH even as the peoples around Israel dwell with their gods in the lands their gods gave them. Thus Jephthah asks the king of the Ammonites, "Should you not possess what your god Chemosh gives you to possess? And should we not be the ones to possess everything that the Lord our God has conquered for our benefit?" (Judg 11:24). So also Naomi asks her Moabite daughter-in-law to go "back to her people and to her gods" (Ruth 1:15). Even foreigners who come to see YHWH as the only God still see him as dwelling quite concretely and locally with his people in the land of Israel. Thus, when Naaman the Syrian is healed by Elisha, he exclaims, "Now I know that there is no God in all the earth except in Israel," and in order to worship YHWH when he returns to Syria, he asks to be allowed to take two mule-loads of Israelite earth along him, because God is *in* Israel (2 Kgs 5:15–17). Within the land of Israel as a whole, YHWH is seen as dwelling in the Temple in Jerusalem in particular. When the cloud symbolizing God's presence fills the Temple after Solomon's dedication of it, Solomon declares, "The Lord has said that he would dwell in thick darkness. I have built you an exalted house, a place for you to dwell in forever" (1 Kgs 8:12–13). The same idea is expressed by the words of YHWH in the psalm: "For the Lord has chosen Zion; he has desired it for his habitation: 'This is my resting place forever; here I will reside, for I have desired it'" (Ps 132:13–14). Thus, when Israel is taken into exile from their land, and the Temple of God is destroyed by the Babylonians, God tells the Israelites that he is casting them away from his presence: "therefore, I will surely lift you up and cast you away from my presence, you and the city that I gave to you and your ancestors" (Jer 23:39).

The loss of all the concrete symbols of YHWH's presence—the land of Israel, the Temple, the Ark of the Covenant, and the city of Jerusalem itself—had to be deeply traumatic for the exiled Israelites. In order to make sense of this trauma, they had to reinterpret their understanding of the presence of God in radically different ways. Their most dramatic move was to change the view of YHWH from being one god among many dwelling in the nations of the eastern Mediterranean to the understanding that YHWH created all things in heaven

and earth, including the people of Israel, and that all other “gods” are simply the meaningless and delusory creations of human beings. YHWH is not like other deities, living with their peoples in their lands. Rather, God is without compare, as the Creator of all that exists. “To whom then will you liken God, or what likeness compare with him?” (Isa 40:18). In order to see that God is without compare, Israel is invited to view the furthest reaches of the heavens, in order to understand that God created all that they see. “To whom then will you compare me, or who is my equal? says the Holy One. Lift up your eyes on high and see: Who created these? He who brings out their host and numbers them, calling them by name; because he is great in strength, mighty in power, no one is missing” (Isa 40:25–6). Viewing God as Creator of the cosmos gives Israel a perspective that is far more comprehensive and universal in scope than simply seeing YHWH as dwelling in Israel in the neighborhood of other gods dwelling in their own lands with their own people. “It is he who sits above the circle of the earth, and its inhabitants are like grasshoppers; who stretches out the heavens like a curtain, and spreads them like a tent to live in” (Isa 40:22).

Since God is the Creator of all things, God cannot properly be said to dwell in any house or in any land, even though God may be present there. Thus, in what appears to be a post-exilic addition to the dedicatory prayer of Solomon, he asks regarding the Temple, “But will God indeed dwell on the earth? Even heaven and the highest heaven cannot contain you, much less this house that I have built!” (1 Kgs 8:27). Since God does not dwell only in Jerusalem or in the land of Israel, God may dwell with the exiles in Babylon. “But you, Israel, my servant, Jacob, whom I have chosen, the offspring of Abraham, my friend; you whom I took from the ends of the earth, and called from its furthest corners, saying to you, ‘I have chosen you and not cast you off’; do not fear, for I am with you, do not be afraid, for I am your God” (Isa 41:8–10). Indeed, since all other “gods” are simply empty human inventions, the God of Israel is the God of all human beings, and can be present to them as well as to God’s people in Babylon. The presence of God is not determined by one’s location, but rather by the attitude of the person in relation to God.

Thus says the Lord: Heaven is my throne and the earth is my footstool; what is the house that you would build for me, and what is my resting place? All these things my hand has made, and so all these things are mine, says the Lord. But this is the one to whom I will look, to the humble and contrite in spirit, who trembles at my word (Isa 66:1–2; see also Isa 57:15).

Viewing the presence of God from the perspective of the evolutionary history of the universe may necessitate a similarly radical shift in perspective. Just

as Israel left behind its previous understanding of YHWH as dwelling locally in Israel in a rather small neighborhood of other lands, gods, and people to see God as the Creator of the universe, so evolutionary neuroscience is asking us to leave behind our understanding of God as the Creator of the cosmos to see the universal presence of God in light of the brain's machinery of transcendence. Taking evolutionary history seriously means that we can understand the universe and the development of life in it without appealing to God the Creator as a necessary part of that development. However, far from eradicating the presence of God from the universe, evolutionary history now shows that the consciousness of the presence of God is an essential part of every human consciousness, which has developed into a universal human capacity by means of that same evolutionary history.

Moreover, the brain's machinery of transcendence is activated in evolutionary history by means of concrete and culturally specific myths, rituals, and experiences that are mediated to others by living and dynamic traditions. These particular rituals and myths come to be seen and understood as uniting us with the ultimate and universal reality of all things, which is potentially revealed to all human beings. One can see this move uniting the universal and the particular already developing in the Second Temple wisdom traditions to which Culpepper rightly refers. On the one hand, wisdom is potentially revealed to every human being, for it is at work throughout the universe. "Alone I compassed the vault of heaven, and traversed the depths of the abyss. Over the waves of the sea, over all the earth, and over every people and nation I have held sway" (Sir 24:5–6). On the other hand, Israel comes to see this universal wisdom as dwelling concretely in her midst in Jerusalem.

Before the ages, in the beginning, he created me, and for all ages I shall not cease to be. In the holy tent I ministered before him, and so I was established in Zion. Thus in the beloved city he gave me a resting place, and in Jerusalem was my domain. I took root in an honored people, in the portion of the Lord, his heritage (Sir 24:9–11).

3 The Evolution of the Consciousness of God and the Gospel of John

We can see the same connection of the universal with the particular reflected in the Gospel of John. On the one hand, the Word to which it bears witness enlightens every human being. "What has come into being in him was life, and the life was the light of all people" (John 1:3–4). On the other hand, the Gospel of John claims that this potential enlightenment only truly takes place by means of a concrete encounter with the Jesus who is manifested in his

Gospel. “But to all who received him, who believed in his name, he gave power to become children of God, who were born, not of blood or of the will of the flesh or of the will of man, but of God” (John 1:12–13). Interpreting the Gospel of John in light of the evolution of the brain’s machinery of transcendence, one would say that the consciousness of Absolute Unitary Being is potentially available to all people, as an essential aspect of human consciousness, but that it is the encounter with Jesus that activates this consciousness in those who come to believe in him. “Then he said to Thomas, ‘Put your finger here and see my hands. Reach out your hand and put it in my side. Do not doubt but believe.’ Thomas answered him, ‘My Lord and my God!’” (John 20:27–28). Moreover, the Johannine community comes to understand the universal God revealed in Jesus in terms of love itself. “God’s love was revealed among us in this way: God sent his only Son into the world so that we might live through him” (1 John 4:9). We therefore become children of God when we live and abide in this love, for this infinite and eternal love is the Absolute Unitary Being with which our brains can unite us. “So we have known and believe the love that God has for us. God is love, and those who abide in love abide in God, and God abides in them” (1 John 4:16).

However, if brain science is correct, what we cannot do is to insist that this experience of Absolute Unitary Being, or eternal love, is rooted ontologically in Jesus, by his being the actual incarnation of the eternal Word or Wisdom of God. The presence of God may be mediated to the brain by its experience of Jesus, but the presence of God is to be found in the brain and in the consciousness of God that it makes possible, not in an object, event, or person outside of it. Thus, the Gospel of John could be interpreted as teaching that Jesus is the occasion for the brain’s consciousness of Absolute Unitary Being, understood as love itself, which would also explain why Jesus is seen to replace the Temple as the locus of God’s presence (John 2:21). But Jesus could not be seen as the actual objective locus of God’s presence, first because evolutionary history does not give us a God active and present in the events of the universe, and secondly because God is given to us by means of the brain’s evolved mechanism of transcendence, which the encounter with Jesus in a sense activates and strengthens.

John’s Gospel seems to be most open to this line of interpretation in the story of the encounter of Jesus with the Samaritan woman by the well. The woman contrasts the way Samaritans and Jews worship God by contrasting the Samaritan view of God’s presence on Mount Gerizim with the Israelite view of God’s presence on Mount Zion in Jerusalem (John 4:20). Jesus does not dispute the historical accuracy of this contrast—siding with the view of his fellow Jews, since salvation is from the Jews—but he insists that the time is

coming when God will not be worshipped at concrete sites of his presence, either in Jerusalem or anywhere else, but rather “in spirit and truth” (John 4:22–23). If we interpret this teaching from the perspective of evolutionary neuroscience, we could say that God is worshipped by means of our consciousness of our unity with God’s infinite love, which transcends our consciousness of ourselves, and unites us with the reality uniting all things. Access to this love is given to every person by the way our brains have evolved, and when we access our consciousness of this transcendent reality, the love of which we become conscious wells up in us like “a spring of water gushing up to eternal life” (John 4:12).

From the perspective of evolutionary neuroscience, the mistake would be for us to collapse the universal reality of the love of which we become conscious through Jesus with the reality of Jesus himself, by making him the sole means of access to Absolute Unitary Being, thereby condemning and even demonizing all other forms of access. Unfortunately, the Gospel of John is replete with such exclusivism, most famously when Jesus says of himself, “I am the way, and the truth, and the life. No one comes to the Father except through me” (John 14:6). Over against the claims of the Jews that their experience of the presence of God is mediated through the covenant with Abraham and the Law of Moses, Jesus accuses them of being children of the devil, the opposite of the children of God (John 8:39–44). The Gospel of John also contracts the infinite love of God by limiting love to the community that believes in Jesus. They are to love one another, but not the world that hates them; and they are to pray for one another, but not for the world that does not believe in Jesus with them (John 15:12–17; 17:9). “Whoever believes in the Son has eternal life; whoever disobeys the Son will not see life, but must endure God’s wrath” (John 3:36).

Each religious or mystical experience carries within itself the danger of doing what the Gospel of John does, of making the occasion of the consciousness of the Absolute into the Absolute itself, thereby condemning all other occasions by which people have attained various levels of consciousness of the Absolute. The way out of this mistake might be given to us in the Johannine writings themselves, when interpreted in light of evolutionary neuroscience. The absolute reality with which believers become united is described as eternal and infinite love, and unity with this love should result in the loss of ourselves into this love, so that our lives begin to express the infinity of this love over against our tendency to assert the exclusive legitimacy of our own religious experience over against the religious experience of others. The reality of which believers come to be conscious through faith in Jesus is the same reality experienced by means of the Law of Moses as interpreted in Jewish communities, and the same reality experienced by following the Dharma of the Buddha, in either

the Therevada or Mahayana traditions. Even though the experience of transcendence is the same, since it is rooted in the brain's machinery of transcendence, the interpretation of this experience is not the same, as that is mediated by culture, tradition, and history. As the evolutionary neuroscientists write,

If we are right, if all religions and the literal Gods they define are in fact interpretations of transcendent experience, then all interpretations of God are rooted, ultimately, in the same experience of transcendent unity. . . . All religions, therefore, are kin. None of them can exclusively own the realist reality, but all of them, at their best, steer the heart and the mind in the right direction.¹⁴

This does not mean that there are multiple absolutes, but rather diverse and hierarchically ranked levels of consciousness of Absolute Unitary Being. The highest would be the apprehension of transcendence in the passive way, by depriving the mind of images of the self in the world, as represented by non-dualist Mahayana Buddhist meditative practice. "The mind would exist without ego in a state of pure, undifferentiated awareness."¹⁵ The next level would be mystical union with God, in which the sense of ego is completely abandoned for the sake of complete mystical unity with the divine, by means of active contemplation of an object, such as Jesus in the Gospel of John. "As the sense of self is completely undone, by complete deafferentation, the mind would experience a startling perception that the individual self had been mystically absorbed into the transcendent reality of Jesus."¹⁶ When we come to experience mystical union with the God who is love through faith in Jesus, we die to ourselves and our ego, and become conscious of the union of all reality in God, which could explain why we are drawn to call this God the Creator of all that is. This is what it would mean fully to express the image of God as a child of God, the willingness to lose my life in order to find it in God, the willingness to love without limitation or qualification, out of the more-than-real experience of union with the ultimate reality of love.

This mystical experience may also address the question about suffering and death existentially posed by the evolutionary history of the universe. The transcendental experience of mystical union with absolute reality gives rise to a confidence that suffering and death are not the ultimate reality of the universe. "Our minds are drawn by the intuition of this deeper reality, this utter sense of

¹⁴ Ibid., 165.

¹⁵ Ibid., 119–20.

¹⁶ Ibid., 122.

oneness, where suffering vanishes and all desires are at peace.”¹⁷ Eternal life is not something that will be produced in the cosmos as it evolves through history, but is rather found here and now in the mystical experience that the brain makes possible through its own evolutionary history. The consciousness of our unity with the God who is love frees us from the anxiety of preserving our lives from death by a theory of resurrection and eternal life, and frees us to live lives of limitless love by means of the eternal love welling up in us unto eternal life.

17 Ibid., 172.

PART 2

Creation Stories in Religion



SECTION 1

Creation Stories—Judaism, Hinduism and African Religions

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“Creation Out of Nothing” and the Hebrew Bible

Ellen van Wolde

Does everything that exists have a beginning? Does everything that begins to exist have a cause? Since the old days, Christian theology has offered an answer to these two questions by the notion that is commonly known as *creatio ex nihilo*: God “created out of nothing,” which contrasts with *creatio ex materia* “creation out of some pre-existent, eternal matter.” This theology posited that all things which have a beginning must also have a source or cause, and that because the universe has an apparent beginning it must also have a transcendent cause. The idea of a beginning then demands a creator who existed without a beginning and prior to and outside the universe. At present, the general public (as is visible in many websites on the internet) links the common phrase *creatio ex nihilo* to Gen 1:1. This verse is explained as the description of the very first act of God through which everything came into being. And the implication is that before the moment of God’s creative actions there was nothing: God did not make the universe from pre-existing material, but started from scratch.

In the twentieth century, it became an accepted view in biblical scholarship that this idea of “creation out of nothing” is not based on texts in the Hebrew Bible, but on the Greek text of 2 Macc 7 in the Septuagint, on the New Testament, and on the interpretation of the texts which began to evolve in the mid-second century CE in the atmosphere of Hellenistic philosophy and which solidified around 200 CE. In the last decades, however, more detailed studies have appeared of 2 Macc 7, the New Testament, and Hellenistic Jewish and Christian texts and these studies nuanced the standard view.¹ At the same time, some new explanations of creation texts in the Hebrew Bible were published which demonstrated that these texts functioned in completely different frameworks of thinking than those represented in later Jewish and Christian

1 See G. Schmuttermayr, “‘Schöpfung aus dem Nichts’ in 2 Makk 7,28? Zum Verhältnis von Position und Bedeutung,” *Biblische Zeitschrift* 17 (1973) 203–28; J. C. O’Neill, “How Early is the Doctrine of *Creation Ex Nihilo*?” *Journal of Theological Studies* 53, 2 (2002) 449–465; M. R. Niehoff, “The Emergence of Monotheistic Creation Theology in Hellenistic Judaism,” in L. Jenott and S. K. Gribetz (eds.), *Jewish and Christian Cosmogony in Late Antiquity* (Tübingen: Mohr Siebeck, 2013), 85–106.

traditions, which in their turn determined modern views.² It turned out that texts in the Hebrew Bible never presupposed the concepts that lie at the heart of the “creation out of nothing”-theory, namely the concepts of nothingness and of material origins. In the present study I will concentrate on the Hebrew Bible. Of primary interest are the texts in the Hebrew Bible that can help us discern the parameters of ancient perspectives on cosmic origin.

1 **Survey of Texts with Creation Themes in the Hebrew Bible**

Genesis 1 certainly is the most famous creation story, yet it is far from the only one in the Bible. Without being exhaustive, table 1 offers a list of the creation accounts or texts with creation motifs in the Hebrew Bible, in Hellenistic-Jewish texts, in the New Testament, and early Christian Latin Bible translations. All these texts originate from the first millennium BCE to the fourth century CE.

TABLE 1 *Lists of Biblical texts with creation terminology and creation motifs*

Hebrew Bible	Hellenistic-Jewish texts in Greek
Genesis 1:1–2:4a; 2:4b–24; 5:1–2; 6:7; 14:19.22	Ben Sira 1:1–4; 42–43 (partially Hebrew)
Exodus 20:11; 31:17	2 Maccabees 7:28
Deuteronomy 4:32	4 <i>Ezra</i> 6:38–54
Isaiah 29:16; 37:16; 40:12–14.21–28; 42:5; 43:1.7.15; 44:24; 45:7–8.12.18; 48:13; 51:9–16; 65:17–18;	1 <i>Enoch</i> 60:7–10
Jeremiah 4:23–26; 10:12; 27:5; 31:22; 51:15;	<i>Jubilees</i> 2:1–16 (partially in Ethiopic)

2 Three of the most recent studies are: M. S. Smith, *The Priestly Vision of Genesis 1* (Minneapolis: Fortress, 2010); J. H. Walton, *Genesis 1 as Ancient Cosmology* (Winona Lake, IN: Eisenbrauns, 2011); B. F. Batto, *In the Beginning. Essays on Creation Motifs in the Ancient Near East and the Bible* (Winona Lake, IN: Eisenbrauns, 2013).

Hebrew Bible	Hellenistic-Jewish texts in Greek
Amos 4:13; 5:8–9; 9:5–6 Zephaniah 1:2–3 Zechariah 12:1–8 Psalms 8; 24:1–2; 33:6–9; 44:3; 74:12–17; 78:69; 89:10–13; 95:5; 102:26; 104; 115:15; 119:90; 121:2; 124:8; 136:5–9; 146:6; 148:5–6 Proverbs 3:19–20; 8:22–29; 22:2 Job 3:3–13; 9:8; 26:7–14; 28:20–28; 38 Qoheleth 11:5 Nehemiah 9:6	Greek translation of the Hebrew Bible (Jewish tradition) Septuagint
New Testament	Latin translations of the Hebrew Bible/Septuagint and of the New Testament (Christian tradition)
John 1:1–3 Colossians 1:15–17 Hebrews 11:3	Vetus Latina Vulgate

These distinct texts function in various cognitive environments, that is to say, they stand out in subsequent ancient Near Eastern and ancient Eastern Mediterranean frameworks of experiencing and thinking. In these frameworks people express how they perceive and view themselves and the world in general and the initial stages of the world and God’s role in it in particular. I will first describe this worldview and then concentrate on the descriptions of the origin or of the initial stage of the universe presented in the biblical texts considered the most relevant for the present discussion.

2 Worldview in the Hebrew Bible

“There is more between heaven and earth”; in this and other everyday conversations it seems natural to make a distinction between heaven and earth. However, this is not as self-evident as it appears. The endless universe is, in fact, continuous and not split up into a heaven and an earth. Although the

word pair “heaven and earth” is used in the Hebrew Bible as a merism that expresses the totality of all and everything, the biblical texts share with the ancient Near Eastern culture the view that the cosmos consists of at least three layers: the heaven, the earth, and the netherworld.³ This tripartite cosmic view serves as the backdrop to all texts in the Hebrew Bible.

The tripartite cosmic view is immediately visible in the three opening verses of Gen 1. God performs an action with respect to two direct objects, the heaven and the earth. The two nouns *hāšāmāyîm*, heaven(s), and *hā’āreṣ*, earth, reflect the worldview that the universe consists of at least two components or levels, namely the heaven and the earth. The following two verses presuppose another level in the universe below the earth, namely the *těhōm*, the netherworld or abyss filled with water. The same tripartite cosmic view is discernable in the story of the flood in Gen 6:5–8:22. Gen 7:11 and 8:2 presents the wells as the waters of the *těhōm* coming up from below and the rain waters as the waters from heaven coming down from above, both relative to the earth-in-between. Again the *těhōm* is connected with the waters below the earth. In Gen 49:25 Jacob blesses his sons and comprises in it (a) the blessing of the heaven above, (b) the blessing of the deep below (*těhōm*), and (c) the blessings of the breast and the womb, which implicitly represent the blessings on earth. Deut 33:13 makes reference to the text of Gen 49:25, positioning the heaven above, the *těhōm* below, and the earth’s position in between.⁴

3 Recent studies of the biblical worldview in its ancient Near Eastern context confirm this, although some offer slightly different details and various degrees of specificity. These include (in chronological order): O. Keel, “Das sogenannte altorientalische Weltbild,” *Bible und Kirche* 40 (1985) 157–61; F. E. Deist, “Genesis 1:1–2:4a: World View and World Picture,” *Scriptura* 22 (1987) 1–17; I. Cornelius, “The Visual Representation of the World in the Ancient Near East and the Hebrew Bible,” *Journal of Northwest Semitic Languages* 20 (1994) 193–218; W. Horowitz, *Mesopotamian Cosmic Geography* (Winona Lake, IN: Eisenbrauns, 1998); B. Janowski and B. Ego (with A. Krüger), eds., *Das biblische Weltbild und seine altorientalischen Kontexte* (Tübingen: Mohr Siebeck, 2001); A. Krüger, “Himmel—Erde—Unterwelt: Kosmologische Entwürfe in der poetischen Literatur Israels,” in *Das biblische Weltbild und seine altorientalischen Kontexte*, eds. B. Janowski and B. Ego (Tübingen: Mohr Siebeck 2001), 65–83; B. Pongratz-Leisten, “Mental Map und Weltbild in Mesopotamien,” in *Das biblische Weltbild und seine altorientalischen Kontexte*, eds. B. Janowski and B. Ego (Tübingen: Mohr Siebeck, 2001), 261–79; O. Keel and S. Schroer, *Schöpfung: Biblische Theologien im Kontext altorientalischer Religionen* (Göttingen/Freiburg: Vandenhoeck & Ruprecht, 2002); J. H. Walton, *Genesis 1 as Ancient Cosmology* (Winona Lake, IN: Eisenbrauns, 2011).

4 Also in other texts in the Hebrew Bible, the *těhōm* is clearly conceived as the lowest tier in the tripartite cosmos. See: Exod 20:4, “You shall not make for yourself a sculptured image, or any likeness of what is in the heavens above, or on the earth below, or in the waters under the earth,” Ps 33:7 “He (יְהוָה) heaps up the ocean waters like a mound, stores the *těhōmōt*

What do the ancient Israelites think of when they speak of *těhōm*? The Biblical material allows us to construe an inventory of the possible concepts active on the *těhōm*'s background: (1) it is a spatial realm under the earth; (2) it is conceived as a vertical depth; (3) it is viewed as a large mass of water expanded vertically and horizontally; (4) it is described as a container of water that is the source of springs, wells, fountains, and rivers on earth; and (5) it is considered to be the layer on which the earth is resting. Based on the first two concepts, the semantic content of *těhōm* is considered in terms of depth and translated into English as "the deep" or "the abyss." Based on concepts 3 and 4, the semantic content of *těhōm* is considered in terms of masses of water and translated into English as "waters" or "(primeval) ocean." The last concept is hardly ever taken into account in modern English Bible translations. In short, in the Hebrew Bible, the *těhōm* is clearly conceived as the lowest tier in the tripartite cosmos, a deep container filled with water.

How did ancient Israelites perceive and conceive of the heaven or the heavens? God makes heaven in Gen 1:6–7 as a firmament or vault of solid material in the vertically arranged water masses. Also other biblical texts represent the view that heaven is made of solid material.⁵ The term used, *rāqîa'* (from the verb *rāqa'*), refers to a goldsmith or silversmith who beats out metal or solid material or to the activity of someone who spreads out a plate or solid material.⁶ Based on a metaphorical structuring of this concept, God's making of the heaven is conceptualized in terms of the beating out or spreading of solid plates of the heavenly vault (Ps 19:2 nicely describes the heaven as "his handiwork"). The function of this heavenly vault or expanse is to withhold the waters above the vault from falling down on the earth. In three biblical texts the stretching out of the heavens is set in parallel position with the spreading out of the earth, namely Isa 42:5 "Who stretched out the heavens, who spread out the earth?" Isa 44:24 "I, who alone stretched out the heavens and alone spread out the earth," and Ps 136:6, "Who spread the earth over the water?"⁷ Whereas the spreading out of the solid heavenly vault would keep the waters

(plural of *těhōm*) in vaults," Ps 36:6–7, "O YHWH, your faithfulness reaches to heaven; your steadfastness to the sky; your beneficence is like the high mountains, your justice like the great *těhōm*," and Ps 135:6, "Whatever YHWH desires, he does in heaven and earth, in the seas and all the *těhōmōt*." For a survey on *těhōm* see: E. J. Waschke, "*Těhōm*," in ThWAT 8 (1995) 434–45.

5 See, among others, Isa 42:5; 44:24; Ps 136:6; and Job 37:18. See also Ezek 1:22–26 and 10:1 where an expanse above the cherubim is said to be made of stone or crystal.

6 Cf. Exod 39:3; Num 17:4; Isa 42:5; 44:24; Jer 10:9.

7 The translation is the New Jewish Publication Society translation (NJPS).

from above the vault, the earth is spread out in order to cover the *těhōm* waters and stop them from coming up and flooding the earth. A slightly different metaphor is used in other texts, where the making of heaven is metaphorically expressed as the “spreading out of a tent.” Thus, Isa 40:22: “Who spread out the heavens like gauze, stretched them out like a tent to dwell in,” and Ps 104:2 “You spread the heavens like a tent cloth.” In this metaphor, it is not the material the heavens are made of that is compared to the textile of a tent, but the spreading out of the heavens is compared to the spreading out of the tent. In sum, in the entire Hebrew Bible the heaven is conceived of as made out of solid material that is hammered out or stretched out in the waters as a vaulted roof over the earth to keep the waters above from falling down on the earth.

The central place in the tripartite cosmic view is the earth. It is positioned in between the heaven above and the *těhōm* below. All of the Mesopotamian evidence demonstrates that the earth’s surface was thought to be basically circular in shape.⁸ Maps in the ancient world, from the Babylonian map (British Museum 92687) to the Greek maps drawn by Anaximander and Herodotus, share a belief that the inhabited world was an earth disk surrounded by water.⁹ Also biblical texts testify to the view that the earth is conceived as a single, disk-shaped continent surrounded by an ocean of waters. The Hebrew word *tebel* refers specifically to this earth-disk, i.e. the whole earth considered as a single entity.¹⁰ The word *’ereš* is the more general term referring either to the (dry) land or ground, or to the whole earth. The making of the *’ereš* is recorded in Gen 1:9–10 to be the result of horizontal spatial movements of the waters into an outward direction, so that in the centre dry land appeared. This produces two spatial domains on the earth, namely the seawaters surrounding the land and the land in the middle. Many texts in the Hebrew Bible from Prophets to Psalms and Job testify to the view that the earth’s coming into existence is related to God’s establishing or grounding of the earth.¹¹ God established the

8 See Horowitz, *Mesopotamian Cosmic Geography*, 334.

9 Pongratz-Leisten, “Mental Map und Weltbild in Mesopotamien,” 275; Horowitz, *Mesopotamian Cosmic Geography*, 61.

10 The term *tebel* is used frequently in contexts that associate it with YHWH’s creative act and that, as a result, express the stability or durability of the earth (1 Sam 2:8; Ps 89:12; 93:1; 96:10). It is used when the whole population of the world is referred to (Ps 24:1; 33:8; 98:7; Isa 18:3; 26:9; Nah 1:5). See: C. J. H. Wright, *tebel*, in NIDOTTE, 4:273.

11 See Isa 48:13; 51:13,16; Amos 9:6; Zech 12:1; Ps 24:1–2; 78:69; 89:12; 102:26; 104:5,8; Prov 3:19; 8:29; Job 38:4. For example, Isa 48:13 “My own hand grounded (*yāsad*) the earth. My right hand spread out the heavens”; Isa 51:13 “You have forgotten YHWH your maker, who stretched out the heavens and grounded (*yāsad*) the earth,” Zech 12:1 “Utterance of YHWH

earth by setting it on pillars. These pillars prevent the earth disk from sinking in the waters of the underworld ocean.

In conclusion, the cosmic view of ancient Israel differs greatly from our present-day ideas of the universe. We know that the heaven is not made of solid material. We know that the earth is round and not a flat disk set on pillars. And because of the elliptic shape of the planet earth we know that there can be no watery mass below the earth. Thus our modern worldview contrasts sharply with the tripartite worldview the Hebrew Bible represents.

3 The Initial Stage of the Universe according to Genesis 1:1–10

What is the pre-cosmic condition of the universe? Or better formulated, what is the initial situation before God started his activities with regard to what would become the universe? Or, should we ask: what is the condition the biblical accounts take as starting point in their narration?

In order to understand how Gen 1 presents the initial conditions prior to creation, its opening verses have to be scrutinised. Verse 1 is syntactically notoriously difficult, because the definite article is missing in the first word *bērēšit* “in beginning,” meaning either “in a beginning” or “in the beginning of.” In the former case, reference is made to an unspecified beginning: “in some beginning.” In the latter case, the noun “in the beginning” is in construct state with the relative clause, and indicates that it is restricted to the event of which it marks the beginning: in the beginning of the divine action described as [*bārāʾ*] the heavens and the earth.¹² The latter option is, from a syntactic point of view, the most plausible one. The implication is that the sentence is not finished in verse 1, but continues in vv. 2 and 3. The meaning of the verb *bārāʾ* is widely discussed. In Van Wolde (2009) I presented the hypothesis that this verb designates “to separate” as a purely spatial term, which was further explained and substantiated in Van Wolde and Rezetko (2011).¹³ Based on comprehensive

who spreads out heavens and grounds (*yāsad*) earth; and Job 38:4 “Where were you when I laid the earth’s foundations?”

- 12 R. D. Holmstedt, “The Restrictive Syntax of Genesis 1 1,” *Vetus Testamentum* 58 (2008) 56–67, has presented a grammatically sound explanation of this verse as an unmarked, restrictive relative clause. The noun *bērēšit* is unmarked because it does not have a definite article “beginning,” and the construct form indicates that the relative clause is restricted, and he translates Gen 1:1 “In the initial period that/in which God created the heavens and the earth.”
- 13 E. van Wolde, “Why the Verb בָּרָא Does Not Mean ‘to Create’ in Genesis 1.1–2.4a,” *JSOT* 34.1 (2009) 3–23; E. van Wolde and R. Rezetko, “Semantics and the semantics of בָּרָא.

linguistic studies the conclusion was that the verb *bārā'* functions in the cognitive domain of space and designates separation or setting apart. Dependent on the context of use, it can be translated "to divide, separate, set apart, spread out, disconnect." Hence, v. 1 should be translated: "In the beginning when God separated the heaven and the earth." The implication is that v. 1 does not describe an absolute beginning in time (let alone the beginning *of* time), but marks the starting point of the divine action of separation. Thus verse 1 does not express God's very first action (traditionally known as *actio prima*), since it cannot be excluded that the deity performed other actions before those narrated in this account. Verse 1 tells us about the start of God's *bārā'*-action over and against the situation described in v. 2.

Verse 2 paints in three short strokes (1) the earth as *tōhû wa-bōhû*, which evokes an image of the earthly condition as still covered with the cosmic waters of the *tēhôm*;¹⁴ (2) darkness that covers the *tēhôm* or pre-cosmic waters; and (3) God's wind, spirit, or breath that is moving in face of the waters. In the last clause, the perspective shared is that of the wind or breath of God, *ruaḥ-ʾēlōhîm*, whose action is expressed by the participle *mēraḥepet* of the verb *rāḥap*. The semantic content of *rāḥap* is difficult to ascertain, because it occurs only three times in the Hebrew Bible: once in the Qal *qatal* (Jer 23:9, "all my bones are trembling"), and twice in the piel, Gen 1:2 (participle) and Deut 32:11 (*yiqtol*) ("Like an eagle who stirs up its nestlings and who hovers over his young"). In Gen 1:2, then, the participle of the verb *rāḥap* seems to express a complex movement such as "to hover" meaning to "stay in the same position in the air without moving forwards or backwards,"¹⁵ or a movement of going back and forth constantly. Hence, v. 2b tells about a stationary kind or a constant toing-and-froing movement of God's breath or wind over the waters.

The question now is whether v. 2 describes the pre-cosmic situation, that is, the condition preceding the beginning of God's action described in v. 1, or the situation simultaneous to God's action. In the former case, v. 1 tells us about the start of God's action of separation over and against the pre-cosmic situation

A Rejoinder to the Arguments Advanced by B. Becking and M. Korpel," *Journal of Hebrew Studies* 11 (2009) 9.

- 14 For recent analyses of the terms *tōhû wa-bōhû* see D. T. Tsumura, *Creation and Destruction: A Reap-praisal of the Chaoskampf Theory in the Old Testament* (Winona Lake, IN: Eisenbrauns, 2005); R. S. Watson, *Chaos Uncreated: The Reassessment of the Theme of "Chaos" in the Hebrew Bible* (Berlin: de Gruyter, 2005); and J. H. Walton, , *Genesis 1 as Ancient Cosmology* (Winona Lake, IN: Eisenbrauns, 2011).
- 15 J. Sinclair (ed.), *Collins Cobuild English Language Dictionary* (London: Harper-Collins, 1993), 708.

described in v. 2, a situation characterized by the three elements: water stretching out in all directions, darkness, and God's breath/wind and its stationary or to-and-fro movement over the waters. This is how it is commonly understood. There is, however, another possibility, namely that v. 2b specifies the action expressed by the verb *bārā'* "to separate" in v. 1. Verse 2a, then, describes the condition of the earth covered with waters and of darkness over the abyss of waters, that is, it zooms in on the condition of the heaven and earth referred to as direct object in v. 1, whereas v. 2b zooms in on God's *bārā'*-action in v. 1. Consequently, v. 2b shows that it is God's wind or breath that is separating the primordial waters and that it is thus making a spatial realm ("biosphere") between the heaven and the earth.

In order to decide which of the two options is most plausible, we have to take into consideration the story as it is presented in Gen 1. In the immediately following vv. 3–5, God starts to speak. He addresses first the situation of darkness. God says: "let light be". The performativity of this speech act is visible in the next line: "And light was." God then sees and assesses the light as good (v. 4a), and separates in v. 4b the newly made light and the previously existing darkness, which is indicated by the Hebrew verb *bādal* in the hiphil. Upon calling the light "day" and darkness "night," which is also a performative speech act, night/days can be numbered ("day one" in v. 5b). In these verses the sequence of divine actions is that of two performative speech acts by which God makes light and calls its name "day" alternated with two distinctive acts, one of separation (*bādal*) and one of numbering.

In vv. 6–8, God returns to the waters again. He addresses them with a performative speech act followed by an act of separation: "let there be an expanse/vault be in the midst of water" (v. 6a) and "that it may separate (the verb *bādal* in the hiphil) between water and water" (v. 6b). In v. 7, again God's making is followed by an act of separation: "God made (the verb *ʿāśā*) the expanse/vault" (v. 7a) and "it made a separation (*bādal* hiphil) between water below the vault and the waters above the vault" (v. 7b). The effect of God's creation of heaven is that the two collections of water masses, one above and one below the heavenly vault, are kept at a distance from each other (v. 7). "Creation of heaven in order to keep the waters separated" is a good summary of God's actions with regard to the heavens.

Verses 9–10 relate to waters as well, namely to the waters below the heavens on the earth disk. God starts again with a performative speech act "let the waters under the heavenly vault be gathered into one area, that the dry land appear" (v. 9a), "and it was so" (v. 9b). Although there is no explicit verb of separation, the gathering of waters is in fact a horizontal spatial movement of the waters in an outward direction so that the dry earth appears. Since in the

ancient cosmic view the earth is seen as the land or continent in the middle of the seas that surround it, God's speech act implies that he commands the waters to retreat from and keep at a distant from the centre of the earth disk. Here again, God's speech act involves an enduring separating spatial movement to be maintained by the waters on earth.

From this we can conclude that the divine actions as recorded in vv. 6–10 result in four distinct spatial realms: waters above the heaven, the heavenly vault, the earth disk with dry land in the middle and seas surrounding it, and the waters under the earth. Each of the created phenomena, the heavenly vault and the sea waters on earth, are defined by their separating activities. This leads to the observation that the only spatial realm not mentioned in vv. 6–10 is that between the heavenly vault and the earth disk. Why? Because the spatial realm between heaven and earth was previously described in v. 2b as the result of God's constant aerial movement in face of the waters. It explained that it was God's breath that was constantly hovering over the waters, thus filling the sky or space between the heavenly vault and the earth. From then on, and only from then on, God could have started his creative activities: to begin with the light that he made and separated from the pre-existing darkness, he did go on with the making of the heavenly vault so that it would maintain the aerial space above the earth and withheld the waters above the heavenly vault from falling down on earth (only when the gates of heavens are opened rain would fall down), and he continued with the removal of the waters on the earth disk so that the dry land could appear.

In sum, the initial situation in Gen 1:1–3 is one of primordial waters. However, it is nowhere stated that God created out of water. Certainly, the text does presuppose a pre-cosmic water mass, but the divine action is not linked to the waters as the matter out of which God makes something new or that he transforms into something else.¹⁶ It is as if this materialistic view is altogether absent. Genesis 1 is not interested in or dealing with God's *making out of matter* (*creatio ex materia*) but only in God's *making in order to* (*creatio ut*), God makes or creates in order to let the newly made phenomena fulfil their own roles and functions.

The question is, of course, whether this is also true for the other biblical accounts on the creation of the universe. How do they view the initial situation and do they conceive of God's actions as "making out of" or "arrangement with an eye to"?

16 See Walton, *Genesis 1 as Ancient Cosmology*.

4 The Initial Situation of the Universe according to the Psalms

Seventeen Psalms refer to aspects of creation,¹⁷ of which five explicitly or implicitly refer to the initial stage of the universe and God's first actions.

Psalms 24:1–2 is the first, and says: “The earth is YHWH's and all that it holds, the world and its inhabitants. For he founded it upon the waters, established it on the nether-streams.” Both verbs “found/ground” and “firmly establish,” presuppose a view in which the earth disk is set on pillars on the nether-ocean. It is clear that the initial state is the pre-cosmic water mass, twice described as “waters” and “streams.” Yet again, it is not stated, that God formed the earth out of the waters, as the material with which he makes. In line with Gen 1 is also the notion that YHWH does not make or create the earth as such, but sets it on pillars on the nether-ocean, as is expressed clearly by the two verbs “founding” and “establishing” (not “making” or “creating”). However, the context in which this image figures, differs greatly from Gen 1. In Ps 24 the context is YHWH's lordship and ownership. The opening verse already shows it: “to YHWH belongs the earth.” The front position of *l'e-yhwh* in the clause indicates that YHWH is the topic and focus of the clause and the readers are invited to share his perspective. Also the next verses confirm the very same topic and focus. In vv. 3ff the rhetoric questions (“who may ascend the mountain of YHWH,” “who may stand in his holy place”) indicate that YHWH's residence is too high to ascend, his holiness too great to stay in his presence. The climax is reached in vv. 7–10 where YHWH is five times called “the king of glory,” and three times characterized by terms of might and power: “mighty and valiant,” “valiant in battle,” “lord of hosts/armies.” The majesty and glory of this king is thus specified in his might in battle. YHWH is the lord, the one in charge. Power, might, ownership is the context YHWH's establishment of the earth.

Psalms 33:6–7 is the second psalm, and evokes a fascinating image of the creation of the heavens: “By the word of YHWH the heavens were made, by the breath of his mouth all their armies, (while he was) collecting the waters of the ocean as in a wine skin, storing the deeps (*těhōmōt*) in storehouses.” The main clause expresses that the heavens and their armies are made by God's performative speech act, which is expressed by the noun *dābar* “word” and the verb *ʾāsā* “make” and is explicitly linked to his mouth. Here again YHWH is placed in front position, better still, YHWH's word is. Then, the psalmist sketches in two participle clauses how YHWH actually did it: he collected or

17 Pss 8; 24:1–2; 33:6–9; 44:3; 74:12–17; 78:69; 89:10–13; 93; 95:5; 102:26; 104; 115:15; 121:2; 124:8; 136:5–9; 146:6; 148:5–6.

gathered¹⁸ the waters of the sea in a way similar to humans collecting wine in wine skins or drinks in containers and stores the primordial waters (*těhōmōt*) in storehouses. A similar imagery is detectable in other biblical texts that show that God stores rain, snow, hail, wind, and sea in the storehouses of the heavenly vault.¹⁹ To get an impression of what such an image would look like, one could look at the Assyrian tile in the British Museum (BM 115706) where a deity is pictured against the heavenly vault, with the bags of hail and snow hanging under the vault of heaven. The context in which this image figures in Ps 33 is not as in Gen 1 aimed at a description of the primeval situation, but embedded in a context of praise of God (vv. 6–7) and fear and dread for God (vv. 8–9). The reference to YHWH's making of the heavens thus functions to emphasize God's power and might: whatever he commands happens, and no one, not even powerful kings, are able to escape from him.

Psalms 74:12–17 is a short almost independent creation poem that is placed in a larger setting of complaints about foes and enemies, to which it seems to be loosely connected. Each line of this poem in vv. 12–17 is addressed to God: upon the opening verse, “O God (*ělōhīm*), my King of Old,” follow lines that start seven times with “you” and twice “to you” (“to you belongs the day, to you belongs the night”): “You separated the sea with your might, you smashed the heads of the *tannīnim* in the waters, you crushed the heads of Leviathan, left them as food for the seafaring men, you cleft open springs and torrents, you made mighty rivers run dry, you grounded the luminary and the sun, you established the boundaries of the earth, summer and winter you formed them.” Again, just like Gen 1, the initial situation is that of primeval waters inhabited by *tannīnim*, one of which is called by name Leviathan and who presumably has more than one head. This divine water management is specified here along three lines. The first one is God's activity with regard to the primeval ocean is expressed by the verb *pārad*, “to separate” (v. 13). God separates the waters of the sea with his might. The second one is his smashing and crushing of the primeval water monsters (v. 14). The third activity is another deed of separation: God cleaves or breaks open (the verb *bāqā'*) thus bringing forth the springs and rivers. Commonly the verb *bāqā'* has an object: God cleaves open a rock

18 The verb *kānas* means in the Hebrew Bible “to gather” or “to collect” and is used in reference to waters, portions of harvest for priests and levites, or peoples. “To collect” means “to bring together from several places,” “to gather” means “to bring together a number of things from different places that are far apart” (Collins Cobuild Dictionary), and both English translations fit the Hebrew verb *kānas*.

19 Deut 28:12; Job 38:22 (twice); Jer 10:13; 51:16; Ps 135:7.

or rocks so that water would gush forth.²⁰ Here, the material he is splitting is not mentioned—since no hard rock or hard stuff has yet come into being. So, with regard to the primeval waters God performs three actions: (1) splitting of the water masses, so that waters above and waters below exist in separate settings; (2) killing the pre-existing monsters in these waters; and (3) breaking open (the earth) so that water will arise from springs and rivers on earth. Verse 16 continues with another topic: day and night, the moon and the sun. It is not stated that God made the light (as in Gen 1:3), but only that “the day and night are his.” Thus v. 16a emphasizes his lordship over time. Again, in v. 16b it is not stated that God made the luminaries (as in Gen 1:16), but that he set or established them. Similarly God is said in v. 17 to have set the boundaries of the earth (spatial order) and to have formed the summer and winter (temporal order). In sum, the so-called creation poem in Ps 74:12–17 consists of two parts that do not really deal with creation or the making of the heaven and the earth, but with God’s actions of separation with regard to the pre-existent waters and crushing of the water monsters, and with his spatial arrangement of the entities that appeared out of the waters, namely the heavens on which he set the astral bodies, and the earth, of which he set the boundaries. Thus the text confirms God’s sovereignty over all and everything.

Also Ps 89:6–13 stresses the might and power of YHWH in heaven, on earth and in primeval times.²¹ In describing YHWH as the God of hosts reference is made to vv. 6–7 where YHWH figures in the assembly of holy beings and sons

20 Cf. Judg 15:19, “So God split open (*bāqā*) the hollow which is at Lehi, and the water gushed out of it; he drank, regained strength, and revived”; Isa 48:21, “YHWH has redeemed his servant Jacob. They have known no thirst, though He led them through parched places; He made water flow for them from the rock; He cleaved (*bāqā*) the rock and water gushed forth”; Ps 78:13, 15, “He split the sea and took them though it; He made waters stand like a wall (...) He split (*bāqā*) rocks in the wilderness and gave them drink as if from the great *tēhōmōt*. He brought forth streams from a rock and made them flow down like arrive.” (NJPS translation)

21 A literal translation of Ps 89:6–13 is: “Your wonders, o YHWH, are praised by the heavens, your faithfulness in the assembly of the holy beings. For who in the skies can equal YHWH, can compare with YHWH in the council of the divine beings (the sons of God), a God greatly dreaded in the council of the holy beings, held in awe by all around him? YHWH, God of armies, who is like you, powerful, with your truthfulness around you, ruling the rising of the sea, when its waves surge, you are the one who quiets them. You yourself crushed Rahab, he was like a corpse; with your powerful arm you scattered your enemies. The heavens are yours, yes, the earth is yours. The world and what fills it, you are the one who founded them. North and south, you are the one that separated them, Tabor and Hermon, sing forth your name. You have an arm with strength; your hand is powerful, your right hand stands high.” (NJPS translation, in it “Lord” is replaced by YHWH).

of God,²² who are in heaven with YHWH, but nevertheless not comparable to him. He is introduced together with them, and yet set apart and above them: all gods/divine beings around him in heaven held him in awe. Not only in heaven, also in face of the primeval ocean and waters of the sea, YHWH is unbeatable: he crushed Rahab, one of the primeval water monsters, so that Rahab ended up as merely something like a body slain on the battlefield. Power and might function also at the backdrop of the next verse that describes YHWH's activities on earth. Verse 13 describes how YHWH determined its orientation, the north and south on earth. The verb used to express this distinction between the two points of the compass is *bārā'*, commonly translated "to create." However, this is odd. North and south are not "made" or "created" in the sense of manufactured, but they are distinguished or set apart—they represent two opposite directions. YHWH's establishing of the directions of the wind is elementary for the spatial organization on earth, which also implies his authority and power over the earth. And this is again corroborated in vv. 14–15, in which reference is made to his powerful arm, his strong hand, and exalted right hand. In sum, the context in which the imagery of creation figures in Ps 89 is not as in Gen 1 aimed at a description of the primeval situation but embedded in a context of praise and dread, fear and joy for this powerful and mighty God, who is held in awe by all in heaven and on earth.

The most famous creation psalm is Ps 104.²³ The opening vv. 1–4 sketch the situation before YHWH started to create: it is state of waters and a deity wrapped in light. Implied is that the light itself is not created; light is seen as YHWH's physical representation. The first stage of creation is described as an activity that YHWH performs out of himself and for himself. By spreading out heavens like a tent cloth YHWH creates a spatial realm in the waters, an area filled with air framed by the textile of clouds.²⁴ This is the deity's heavenly living area, the divine Lebensraum, constructed with upper rooms.

22 In v. 6 this assembly is called "collection of holy beings" (*qāhal qēdōšīm*), in v. 7, "sons of god" (*bēnē ʿēlīm*), and in v. 8 "assembly of holy beings" (*sōd-qēdōšīm*).

23 Ps 104 opens in vv. 1–4 with: "1 YHWH, my God, you are very great, you are clothed in glory and majesty, 2 (he) who is wrapped in a robe of light, who spreads out the heavens like a tent cloth, 3 he who builds his upper room in the waters, he who makes the clouds his chariot, he who moves on the wings of the wind, 4 who makes the winds his messengers, (who makes) fiery flames his servants." (NJPS—here "Lord" is replaced by YHWH).

24 See A. Krüger, *Das Lob des Schöpfers: Studien zu Sprache, Motivik und Theologie von Psalm 104*, (BMANT 124 (Neukirchen: Neukirchener Verlag, 2010), 108, "Sowohl die "Zeltdecke" (*yēřīʾā*) als auch "Schleier" und "Zelt" (*dōq*, *ʾōhel*, in Jes 40,22b) veranschaulichen die Erfahrung des Himmels als luftiges (Wolken-) Gewebe und die Vorstellung eines durch den Himmel wie von einem Zelt umscholssenen Lebensraums."

From this heavenly abode YHWH is ruling, and the weather phenomena are seen as his servants. Both the terms “chariot” and “messenger” entail a spatial realm between heaven and earth, although the earth is not yet made: the clouds, winds, and thunder are seen as go-between in the spatial area between heaven and earth. In the next five verses, Ps 104 presents YHWH’s creation of the earth.²⁵ The main frame of narration tells about the three actions YHWH performed in the past: he founded the earth on her foundations (v. 5), established the place for the water (v. 8), and set the boundaries the waters are not allowed to pass (v. 9). Prior to these divine actions existed a situation that is described in v. 6 as a water mass or *tēhōm* covering the earth “like a garment.” Seen from the perspective of this pre-existent situation, the waters are seven times described as subjects that acted upon YHWH’s blast: the waters fled, rushed away, flew up and went down, could not pass again, could never return. The reason for their rush was YHWH’s threatening voice and thunder: with his voice he sets up boundaries, limiting the waters to one place. Founding and establishing a stable earth, that would never totter, and founding and setting up borders, that would keep the waters to their assigned place—these are the main divine actions with regard to the earth. The newly made earth from then on consists of two areas: the dry land and the place where the waters have gathered. This new situation is a secure and steady one, because never again will the waters cover the earth.

In sum, the initial situation is characterized in Ps 104:1–9 by two entities, deity and waters. Just as the deity was/is wrapped in a robe of light, the earth was wrapped in a robe of water. The difference between the heaven and the earth is clear: nothing yet existed of what would become heaven, only a mass of water in which YHWH spread out and built a vault, while the earth was present but still covered by waters.²⁶ YHWH’s creative activities resulted in (a) a heavenly realm as the divine Lebensraum, the result of his spreading and building activities in the primeval waters; (b) a spatial area filled with air, clouds, winds and other meteorological phenomena, considered as in-between space; and (c) the earthly realm, the result of YHWH’s chasing off the waters to one

25 Ps 104:5–9: “5 He founded the earth on her foundations, she will never again totter; 6 the *tēhōm* covered it as a garment, above the mountains stood the waters; 7 at your blast they fled, at your thunder they rushed away; 8 they flew up the mountains, went down the valleys to the place you established for them; 9 the bounds you set they shall not pass, they shall never again cover the earth.”

26 With regard to YHWH wrapped in light, we would never conclude that the deity is not yet there below the garment of light; similarly, the earth already existed, wrapped in a garment of water.

place, so that the dry land, mountains and valleys, could become the living space, habitat, or Lebensraum for all creatures that will be more extensively described in vv. 10–30.²⁷ The initial situation of Ps 104 is therefore, like Gen 1, one of primordial waters. As in Gen 1, Ps 104 does not state or assume that God created out of water, so here too a materialistic view is altogether absent. Psalm 104 does not seem to be interested in God's making out of (*creatio ex*) but only in God's making in order to establish distinct living areas, stability, and Lebensraum (*creatio ut*).

5 YHWH's Speech from the Whirlwind in Job 38

YHWH fires a barrage of questions at Job in chapter 38 of the eponymous book. In doing so, he does not seem to give an answer to Job's questions and accusations, but to emphasize his freedom to act without constraint: YHWH cannot be coerced either by human behavior or by any external moral obligation, but does solely as he wishes, because he is the creator and originator of it all. He expresses this view in imaginative language and metaphors that evoke a picture of how the entire universe came into being. He does so in two series of questions, the first series in vv. 4–21 regarding the earth and the second in vv. 22–38 the heavens.

YHWH opens his speech from the whirlwind in vv. 4–6 asking: who founded the earth, measured it, sunk its bases and set its cornerstones? And he implies that his construction of the earth is closely related to the hedging in of the waters. Contrary to those who argue that vv. 4–11 refers to two creations, viz. a creation of the earth (in vv. 4–6) and a creation of the sea (vv. 7–11), the syntactic cohesion of these verses shows that vv. 4–11 do not separate the two. This explains why in Job 38:4–11 the sons of God sing out of joy when the sea is hedged in, because it is an essential part of the primeval building of the earth, closely related as it is to the restraining of the waters of the cosmic ocean. Verses 12–15 also relate to the earth. However, this time creation is not related to primeval times, but to the creation that takes place every day anew. Here again, creation (light) and limitation (the wicked are removed) go hand in hand.

27 Cf. Krüger *Das Lob des Schöpfers*, 39): "An keiner der genannten Stellen sind Anspielungen auf einer *Kampf* gegeben. Vielmehr wird in ihnen die ordnende und damit Lebensraum sichernde Tätigkeit JHWHs ausgesagt, die hier eine 'definitive und irreversible Scheidung der Wasser von der Erde und deren dauerhafte Begrenzung' bedeutet."

Subsequently, v. 16 locates the sources of the sea in the *tēhōm* or abyss and describes them as "the depths of the sea," while in v. 17 the "gates of death" are related to "the gates of darkness," which should be understood as an epithet of the netherworld. Explicit proof of the fact that the place of death is conceived of as belonging to the region of the earth can be found in v. 18, where this place is referred to as "the expanses of the earth." Actually, the best-known features of the netherworld in the ancient Near East are its darkness and its gates. These gates lead from the approaches to the netherworld into the interior of the region. In the ancient cosmic view both the heavens have gates and the earth has gates, and the earth's gates are located in the netherworld. The gates, like those in heaven, were identical in structure to city gates on the earth's surface and consisted of many gate parts, including doors, door frames, bolts, locks, and keys. Here in vv. 16–18 exactly these two features are mentioned: the gates of death and the gates of death's gloom. Verses 19–21 introduce the terms "dwelling place of the light" and "the place of darkness," and refer to the way the sun goes to this dwelling place. In conclusion, the first part of Job 38 (vv. 4–21) reflects on the creation of the earth in its full size. It starts with the foundation of the earth's surface, including the seas surrounding the earth. In the prevalent cosmic view of the time these pillars were conceived of as sunk into the *tēhōm*. Subsequently, some attention is paid to this *tēhōm* or abyss and to the netherworld.

The second part of Job 38 (vv. 22–38) regards the heavens, and describes the creation of the weather phenomena separately from that of the constellations. It is YHWH who placed the vaults of snow and the vaults of hail in their own local environments. Against the background of this cosmic geography, YHWH's speech shows that the "inhabitants" of the heavens act according to their characteristics and their rules: the constellations know their schedules, the winds know their paths and channels, and the jars of heaven are poured according to their own wisdom. The heavenly phenomena know of no parents and know of no death. In contrast, the "inhabitants" of the earthly levels have a beginning and an ending. On earth, differentiation is discernible on every level. It is YHWH who made these distinctions, who put his rules, or allowed the phenomena to live and act according to their own rules and schedules, while he monitors it all.

In conclusion, YHWH presents in his speech from the whirlwind an image of how it all began. It started with his closing in of the sea behind doors, while the sons of God sang out of joy because YHWH restrained the waters of the cosmic ocean. Again, an initial situation of primeval waters is sketched that is not oriented towards the past but to the future, that is, the universe in which

each and everyone plays its own role, is made to follow its own path of wisdom. The context is not one of fear or dread, as in the psalms, although it does share with the psalms an endless respect for YHWH who empowered it all. If divine actions may appear unjust to humans, that is not because of their failure to understand some bigger picture (since this bigger picture is shown to us in Job 38), but because the God of Job is constrained by no requirement to be just according to human standards of morality and justice.

6 The Initial Situation in Isaiah 51 and Proverbs 8

In addition to the above-described texts, two more texts in the Hebrew Bible depict the situation that existed prior God's creation, but they add nothing substantial to the already presented views. The first is Isa 51:9–10: “Was it not you that hacked Rahab in pieces, that pierced the *tannîn*? Was it not you that dried up the sea, the waters of the great deep (*têhôm*)?” Here again the primordial water monsters are overpowered by YHWH, who also hedged in and dried up the primeval ocean. Isaiah 51 thus shares the view that it all started with water, and that YHWH's first actions of creation regards this primordial water mass inhabited by sea monsters.

Another text is Prov 8:27–29, in which wisdom itself narrates about creation, speaking in the first person singular. Wisdom tells about how it was made first, prior to all other phenomena: “I was there when he [=YHWH] set the heavens into place, when he fixed the horizon upon the *têhôm*; when he made the heavens above firm, and the wells of the *têhôm* gushed forth; when he assigned the sea its limits, so that its waters never transgress his command.” No Rahab or Leviathan is mentioned here, but only wisdom. Water and wisdom both existed prior to creation, but where wisdom was located is not told.

7 Conclusion: *Creatio ex Nihilo* in the Hebrew Bible?

The examination of the creation-texts in the Hebrew Bible that include references to the initial situation has demonstrated that the frameworks of thinking expressed or implied by these texts differ greatly from our modern frameworks. Not only did the biblical texts share the cosmic views of the ancient Near East, but also their ideas of divine beings were of an altogether different nature than ours. Texts such as Gen 1 (see especially 1:26), Job 38, and many more texts in the Hebrew bible presuppose a heavenly court with more

than one divine being, and these heavenly beings are often called the "sons of God."²⁸ Psalm 104 describes the weather phenomena as YHWH's servants, the messengers he sends from his heavenly abode to the earth. Also the ideas of the animal kingdom are different from ours, especially with regard to the primeval water monsters, of which Leviathan is still well-known in modern times. In other words, their cognitive framework is not the same as ours.

Genesis 1 emphasizes that God made and separated everything in a well-ordered way with the intention that the creature phenomena should maintain the arrangements in time (week and Sabbath) and space (distinct spatial areas). The five examined Psalms elaborated on the pre-cosmic water mass and on God's actions as a kind of water manager (God could have been a Dutch hydraulic engineer). Psalm 24 relates to the earth and places YHWH's firm establishment of the earth in the context of his power and lordship, whereas Ps 33 focuses on heaven and describes it as a divine attribute. It is embedded in a context of praise of God and fear and dread for God. Psalm 74:12–17 consists of two parts that do not really deal with the making of the heaven and the earth, but with God's actions of separation with regard to the pre-existent waters and crushing of the water monsters, and with his spatial arrangement of the entities that appeared out of the waters, namely the heavens on which he set the astral bodies, and the earth, on which he set the boundaries. Thus the text confirms God's sovereignty over all and everything, and focuses on the functions and roles the astral and earthly bodies have to play. Also Ps 89 tells how YHWH smashed the sea monster Rahab and how he, in face of the primeval ocean and waters of the sea, was unbeatable. Yet, Ps 89 gives less a description of the primeval situation, but shows how all in heaven and on earth feel awe and dread for this powerful and mighty God. And finally, Ps 104 describes how YHWH's spreading and building activities in the primeval waters resulted in a divine heavenly realm, while the earthly realm was the result of YHWH's chasing off the waters to one place. The power of life giving and life taking is what makes all creatures full of gratitude and fear at the same time. Just like Gen 1, these psalms are not at all interested in the material out of which YHWH made the cosmos (*creatio ex*), but only the making itself and its aim: he created everything in order to establish distinct living areas, stability, and Lebensraum (*creatio ut*). Yet the framework in which these deeds of creation figure is different

28 N. S. Kee, "The Heavenly Council and its Type-Scene," *Journal for the Study of the Old Testament* 31 (2007), 259–71, discusses the following major passages related to the assembly of the heavenly beings: 1 Kgs 22:19–23; Job 1–2; Ps 82; Isa 6; Zech 3; and Dan 7:9–14. He also examines 25 shorter passages in the Hebrew Bible.

from that in Gen 1. The reference to YHWH's making of the heavens and of the earth function to emphasize his power and might. These psalms express YHWH's sovereignty over all and everything. In the book of Job, on the other hand, still other elements are acknowledged. The deity YHWH, who made the distinctions between the heavenly and the earthly phenomena, also allowed them to live and act according to their own rules and schedules. It does share with Gen 1 and the psalms an endless respect for YHWH who monitors it all.

The creation-texts in the Hebrew Bible never were accounts of material origins, let alone accounts of creation out of nothing, but had an altogether different focus. They are oriented towards the scope and role the phenomena play in this universe and show how in their origin the aims and functions of their future existence are set. In other words, these creation texts do not answer questions of "how" or "when" and "where," or "from what," but relate mainly to the questions of "where to" or "in order to what." The answer to these questions is: to play their role in the universe that is spatially and temporally arranged by God. The biblical accounts take their starting point at a certain moment in time and space, and this moment is characterized by two features: waters (with or without water monsters) and God/gods. They do not presuppose a situation of nothingness, but one of water. In their narration the perspective is faced forward to the future, not backward to the past.

“Why the World, Why the Universe?” A Buddhist Perspective

Paul van der Velde

I ran through *saṃsāra*, with its many births,
Searching for, but not finding, the house holder,
Misery is birth again and again.

House holder, you are seen!
The house you shall not build again!
Broken are your rafters, all,
Your roof beam destroyed,
Freedom from the *saṃkhāras* has the mind attained.
To the end of cravings has it come.¹

Among modern western Buddhists we may often come across the idea that Buddhism is a “scientific” religion, or even a “scientific spirituality.”² Buddhism has even got the reputation of being the only “scientific” religion, whatever this may imply.³ Well, actually what this statement implies is rarely ever further interrogated. It is true that nowadays prominent Buddhists take part in scientific research or show warm interest in discussions with scientists. The Dalai Lama for instance is a partner in the so called “Life and Mind” discussions, but we may wonder whether in these interactions the Buddhists are subject of research or object.⁴ But whatever the case, there are Buddhist teachers who do not avoid the confrontation with scientific research, which in itself of course is challenging. I would rather say that it cannot be held that Buddhism is the only “scientific” religion or even that Buddhism as such is “scientific.” But there are

1 Dhammapada XI, 153, 154 in: *Buddhism: the Dhammapada*, translated by John Ross Carter and Mahinda Paliawada (Oxford, Oxford University Press 1987), 39. Tradition has it that these were the very words the Buddha told Māra once he realized how the universe works and how the beings arise and come to their end.

2 B. A. Wallace, ed., *Buddhism and Science: Breaking New Ground* (New York: Columbia University Press 2013).

3 S. Lopez, Jr., *Buddhism and Science: A Guide for the Perplexed* (Chicago: University of Chicago Press, 2008).

4 A. Harrington, and A. Zajonc, eds., *The Dalai Lama at MIT* (Hadley: The Mind and Life Institute, 2006).

Buddhists who are more than ready to confront Buddhist ideas and concepts with the results of modern science.

In this contribution I would like to reflect from a Buddhist perspective on the three movements proposed by Alan Culpepper on the universe and the implications religion, and realized salvation may have here. I would like to do this on the basis of the division which he makes in his chapter when he raises his three points. First of all, what do scientists say on the history of the universe? This question I would like to transform into the question what Buddhism has to say on the origin and the nature of the universe as we know it. Secondly Culpepper reflects on what this implies for our understanding of God. Here as well Buddhism has its specific views. The last question, what this may signify for the understanding of the Gospel of John, I have transformed into the question, what the teachings of the Buddha, which are in Buddhist eyes the only way of salvation, imply for us humans. What is the relation between Buddhists' salvation ideologies and the universe as we know it?

1 The Universe

As a matter of fact, the Buddha refused to give his disciples a kind of creation account. Why the universe exists, after all, was and is not of any interest, so tradition makes him tell his disciples. Once they asked him why the universe was there at all, if it were such a place of misery and suffering. Who had started it, if it was such a bad idea? In the *Cūlamālunkyasutta* (*Majjhimanikāya* 63) it is stated that the Buddha confronted with this question stated that if one desires to know this answer one is like a man who has got a poisoned arrow in his eye. Instead of asking to be brought to a physician straight away, he is wondering what the names of the parents of the shooter might be, of what type of bird the feathers originate that are fixed to the stem of the arrow, and so on-wrong questions from a Buddhist pragmatic perspective.

The origin of the world is even considered to be one of the fourteen unanswerable questions, problems of which the Buddha stated that they were not only of no interest at all, but could likewise not be satisfactorily answered. According to the Buddha there is no reason why we should wonder why the universe exists. There will be a reason, but that reason is not of any interest for us. We as suffering beings should try to deal with the universe in order to deliver ourselves and others of the ever recurring experience of suffering. That is all. In this explanation of the Buddha we are confronted with one of the striking aspects of most of oriental speculation, knowledge merely for the sake

of knowledge is of no avail for us. Whatever we undertake, whatever subject we speculate on, it should lead to final liberation. Knowledge for knowledge's sake is of lesser importance from a Buddhist perspective, of no use. We will come back to this later. The world is an ailment; we should try to get rid of it as quickly as possible.

1.1 *A Buddhist Evolution? The Aggaññasutta*

Still contrary to what we could expect if such clear statements are made on the uselessness of questioning the origin of the world, we do find a creation myth in the Pali canon. Moreover, it is hard to find Buddhists in Asia who do not believe in some kind of creation myth, an example will follow further down. First, let us focus on the creation of the universe and how the Buddha is supposed to have described it. Remarkable is that in this renowned Pali source, the Aggaññasutta part of the Dīghanikāya, references seem to be made by the Buddha to one of the more famous creation hymns from the Ṛgveda, the Puruṣasūkta (Ṛgveda 10, 90).

The Aggaññasutta begins with a visit of two of the Buddha's disciples, Bhāradvāja and Vāseṭṭha, who come to see him rather upset. The reason for this is that both of them are in fact of Brahmin origin, but as they have joined the Buddhist sangha, they have lost their Brahmin purity and therefore their respect from the other Brahmins. They have just been scolded and slandered by their former companions. The reason for them being called names has got to do with one of the most widely spread myths on the origin of the varṇa system, the traditional base for the later caste system. India has countless creation myths, but one of these is often set to the front if the origin of the varṇa system is discussed. It is stated that the universe arose from the sacrifice of a huge multi-headed, multi-armed primeval creature, the puruṣa. This puruṣa was divided as part of a sacrificial act and the Brahmin race originated from the mouth of the giant. Therefore, whatever they speak is truth and will become truth. Therefore, they are the guardians of the revealed Vedic lore, and with the knowledge of both the sacrificial rules and the power of sound which they embody they have the ability to create both time and space, maybe even immortality. They embody the gods on earth, the power of the rites. Therefore, they keep the universe as it is. Their ritual acts and hymns cause the moon to rise and refill it with the potion of immortality every month, due to their works the constellations move along their orbit in the sky. It is due to their rituals and recitations that the universe exists at all. That both disciples have abandoned their ritual position in Indian society by their conversion to the sangha must have been outrageous in Brahmin eyes.

Therefore, both pupils come to their master the Buddha. Now the Buddha starts his sermon, but it is complicated to say whether the Aggaññasutta truly contains a serious account of the creation of the universe or whether it is one of the rare examples of humor, of fun or mockery, in the Pali canon.⁵ The Aggaññasutta could even be a persiflage on the Puruṣasūkta hymn. After all there are other examples where the Buddha seems to harass Brahmins with their acclaimed virtues and supernatural abilities.⁶ Brahmins will often state that they are “twice born,” the initiation in the Veda is considered to be a second birth. The sacrificial thread (yajñopavīta) Brahmins wear from their left shoulder to the right hip is considered to be a second umbilical cord. On various occasions the Buddha has uttered his amazement on this, as the average humans are born from the womb of their mothers, and they were connected with this umbilical cord to their mothers. To which mother was the second umbilical cord connected? Humans are “yoni-ja,” “born from the womb of their mother,” and not from a mouth of some sacrificed huge god or something. In fact the Puruṣasūkta hymn not only explains the origin of the Brahmins, but the entire universe, sun and moon, all creatures, all the other humans, even the variations among the various varṇas.

According to the Aggaññasutta once the world was destroyed. All creatures changed into purely spiritual non-physical entities in a radiant heaven. They roamed about freely, unaware of anything else. After some time a primeval universe came into being and the spiritual beings left their heavenly abode and, living out of their own light, floated into the universe. In those days, however, the universe consisted only of water and darkness, sun and moon were not there yet, nor the seasons, nor the constellations and gender differences. Still later a kind of edible layer spread on the waters. The taste was excellent and it had a honey-like color.

One such creature came down to this layer and tasted it. Others joined and started to eat as well. Desire came into being. Still later hands developed, and the beings started to break parts of this layer. Their natural light, which had guided them so far, left them and went to the sun and the moon. The constellations followed, day and night and the dark and light halves of the months. So both time and space arose, the universe was truly back.

The creatures started eating more and more, and they begot real bodies. By now they had lost their abilities to fly. Ideas on individuality came about, and they started to judge one another; some were handsome, some ugly. As soon as this idea came to be the edible layer disappeared. Ever since, the creatures miss

5 R. F. Gombrich, *What the Buddha Thought* (London: Equinox, 2009), 186–90.

6 J. Bronkhorst, *Buddhism in the Shadow of Brahmanism* (Leiden: Brill, rpt. 2011), 100.

this delicious taste, and this memory triggers their desires, their lusts. They long for a taste which they have missed ever since. This triggers their desire for being.

Then an enormous bulb arose which looked like a giant mushroom. This bulb once more had a delicious taste, but as soon as the beings were satisfied with the taste they once more started their judgments about who was beautiful and who was not. Once more the tasty bulb disappeared. The beings lamented as they dearly missed the delicious taste. The same happened with an enormous creeper. Up to today creatures weep if something is inflicted on them because they miss the creeper. Husked rice started to grow. Whatever the beings would consume in the daytime would be restored at night. But still the process continued. The beings once again made their distinctions, and gender differences arose. Lusts made people long for the other gender, and yet others would throw mud and dust at those who would enjoy carnal desires. Now the beings started to build houses to hide their lustful acts.

One being got the idea to collect rice for two days and to keep the rice for the next day in his house. Then they started to keep rice in stock. The husked rice changed into unhusked rice now. The creatures lamented and remembered how they were once radiant and how they lost it all. Rice grew in bushes, and people decided to put fences around the paddy fields. After some time a person unrightfully claimed a paddy field to be his. The others scolded him and told him never again to make such a claim. But it happened again. The beings assembled and decided to appoint the most qualified of them as a supervisor. He got the title Mahāsammata, Rājā, Khattiya. This was the origin of kingship. Thus the nobility arose. Another group decided never again to succumb to the evil practices developed by the others, theft, slander, and so on. They renounced the world, started to live in huts in the forest, meditated, and begged for food. They became the Brahmins. Yet others did not meditate but produced books, and yet others undertook all kinds of acts. They became the Vaiśyas. Others, the servants became the Śūdras. As such, humans have no different origins. Nothing like a birth from a sacred mouth, as is claimed for the Brahmins; from arms as the Kṣatriyas, the belly as the Vaiśyas, or the feet as the Śūdras, as is claimed in the Puruṣasūkta hymn. People of all kinds, classes, and castes share the same origin. Ascetics with their virtuous qualifications and Buddhist monks can originate from all of these groups. The highest person does not count as such merely on the basis of his birth; he or she does so on the base of virtuous behavior and thoughts. The most virtuous person is the person who has shed his or her attachments, so the Aggaññasutta has it.

Meanwhile we can find in the Aggaññasutta some remarkable Buddhist viewpoints on the nature of the universe and the order which we may find

in it. The universe finds its origin in ignorance (Skt: *avidyā*, Pa: *avijjā*). Out of this ignorance lust arises. Lust will never come to an end unless it is ruthlessly uprooted. So lust and thirst (Skt: *trṣṇā*, Pa: *taṇhā*) are deeply intertwined. The one inspires the other, and they drag one another into never satisfying experiences. This all further runs out of hand, and before we know it we have bodies, passions, we commit sins, steal and so on. Therefore, we need a supervisor who can invest us with guidelines. This is the king, whom we need so badly for our discipline. Without a proper, qualified king the universe will run out of hand and there will be chaos. Chaos is one of the most dreaded dangers. Therefore, in both Hinduism and Buddhism the need for a proper ruler is crucial.⁷ Stronger even, a proper ruler will develop enormous powers. Even the climate will adjust to his desires so that above all the monsoons will be propitious, crops bountiful, epidemics are no longer heard of, and even earthquakes stop, as the powerful king will by his might pin down the earth and enforce her with stability. As a result of all this even the gods will come down from heaven as earth is preferable to heaven, and in the end even the next Buddha will be born on earth. After all Siddhārtha Gautama was born on earth because his father, king Śuddhodana, was the most righteous ruler thinkable. Even today a righteous ruler is supposed to be able to bring a living Buddha down to the earth.⁸

Now we must keep in mind that the Buddha possibly never told his disciples this story in order to explain to them how the universe came into being but rather to mock the supernatural origin claimed by the Brahmins.⁹ So maybe it never was a story about a true Buddhist cosmology, but now it counts as such, humorous in origin or not, because the Buddha is supposed to have told it.

One remarkable fact: not only here but on other occasions as well the Buddha attacks Brahmins for their claim to be born from the mouth of the primeval *puruṣa*. All other humans are what the Buddha then calls “*yonija*,” “born from the womb” of their mother. The Buddhist tradition has it, however, that the Buddha himself also was not “*yonija*,” as he was born from the right hip of his mother. Apparently this story on this miraculous birth from his mother’s hip was not prominent yet in the earliest accounts when his discussions with Brahmins on this subject are supposed to have taken place,

7 R.F. Gombrich, *Theravada Buddhism: A Social History from Ancient Benares to Modern Colombo* (New York: Routledge, 2006), 61.

8 A. Sponberg and H. Hardacre, eds., *Maitreya, the Future Buddha* (New York: Cambridge University Press, 1988).

9 J. Bronkhorst, *Buddhism in the Shadow of Brahmanism* (Leiden: Brill, rpt. 2011), 100; R. F. Gombrich, *What the Buddha Thought* (London: Equinox, 2009), 186–90.

or it was only locally known. The episode of the Buddha's miraculous birth is often portrayed on Buddhist reliefs or on paintings. It is even stated that the Buddha could remember all of his former lives due to the fact that he was not "yonija," but born from his mother's hip. A normal natural birth from the uterus is in Asia considered to be so traumatic that all memories from past lives are erased.

1.2 *Popular Buddhism and Creation*

Now, as told in the beginning of this contribution, the Buddha considered the question on the origin of the universe as one of the unanswerable matters. This does not imply, however, that generally speaking traditional Buddhists in Asia live without creation myths. Most of them do have a myth on the origin of whatever exists even though this myth may not be of Buddhist origin. The myth often originates from another religious tradition. We must keep in mind, however, that for traditional Buddhists this fact usually does not count as they experience their particular tradition as an undivided unity. To give an example, most Tibetans believe they originate from a monkey who was an emanation of the bodhisattva Avalokiteśvara (Chenrezig), or a fervent devotee of Avalokiteśvara.¹⁰ This monkey came to the earth to meditate there in lone-some seclusion, but a female demon seduced him. At the end they had offspring, but their children would endlessly fight amongst each other. Therefore the monkey taught them agriculture, animal husbandry, and various professions.. Only then did the fighting stop. The Bodhisattva would from that moment on be eternally present in Tibetan history. His present emanation is in the form of the fourteenth Dalai Lama. Therefore, Tibetans have quite a different experience if they see the Dalai Lama than westerners if they see him. Westerners see the friendly, giggling monk. Tibetans have an incomparable view back into their own history; they witness timelessness once they see the Dalai Lama as he is eternally present as their forefather. They see their own origin in time, in space. These ideas do not originate from the Buddha Siddhārtha Gautama. Yet Tibetans live with this "timeless living history."

1.3 *Various Births, Various Lives, the Bhavacakara*

Strictly speaking Buddhists do believe in rebirth but not in transmigration of a permanent, eternal soul. Yet it is readily accepted by most Buddhists that lives do follow one another. Circumstances under which and the embodiment in which one is reborn are conditioned by karma, the accumulation of

10 M. T. Kapstein, *Tibetan Buddhism: A Very Short Introduction* (New York: Oxford University Press, 2014), 59.

meritorious and unmeritorious deeds performed in one life or in several lives. Within Buddhism there are various notions on how the cosmology is constructed and how processes work within it. If it comes to this, Buddhism is not a unity. But in most of these cosmologies we may find similar ideas on how and where beings reincarnate. There are countless regions between the worlds of rebirth and the divine, heavenly spheres in which one can end up, but the most important realms of rebirth which most Asian Buddhist consider to be real are the following. A being can be reborn in the realm of the gods, hell, the animal kingdom, the realm of the warring demons, the hungry ghosts, and the human world.¹¹ All of these realms have their particular disadvantages. In the heaven of the gods life may seem to be eternal, there is at first sight hardly any form of suffering, but a life here only lasts as long as there is the meritorious karma. Once this is over all of a sudden one becomes old and death will follow. Hell is one of the worst rebirths; there are cold and hot hells, and suffering there seems to be endless.¹² Yet once the demerits have passed one is reborn elsewhere. The animal kingdom comes close to the human world. A major problem in the animal world, which in Buddhism is often stressed, is that animals are driven by ignorance. Moreover, animals seem to be unaware of the existence of humour. This makes their lives unbearable. Thus animals suffer endlessly. In the realm of the warring demons there is no end to strife. A gruesome rebirth is the birth in the realms of the hungry ghosts.¹³ One is reborn as a repulsive creature with an enormous belly, and one is surrounded by delicious food. However, one's mouth is like a needle's eye, and the neck is extremely slim so that this hunger is never satiated. It is one of the worst rebirths thinkable. Best after all is rebirth as a human, complicated though our lives may be. A human is gifted with great intelligence due to which one may experience the distinctions between moments of suffering and moments of extreme joy. Memory enables the humans to be aware of this so that a process of understanding and spiritual development may take place. Therefore, in spite of all human tribulations, life as human is the best chance among the dubious as none of these births will in the end suffice. But it was in human form that the Buddha reached his enlightenment through which he could put an end to his suffering. A remarkable difference with Christianity here can be found in the completely different position god or gods have within Buddhism.

11 A. Sadakata, *Buddhist Cosmology: Philosophy and Origins* (Tokyo: Kosei Publishing, 1997), 69.

12 B. J. Cuevas, *Travels in the Netherworld: Buddhist Popular Narratives of Death and the Afterlife* (Oxford: Oxford University Press, 2008), 37

13 Sadakata, *Buddhist Cosmology*, 54.

Gods may be the forces that create the universe, but they are not immortal and neither are they reliable.¹⁴

In modern Buddhism these six realms are at times interpreted not as actual, localized lives or rebirths but as states of mind.¹⁵ Heaven, for instance, is then seen as a state of bliss in which one does not understand it will pass away. It may also consist of idealized memories of a previous period in life when everything seemed to be painless. Hell is a psychic depression for instance. The animal kingdom consists of a period of complete lack of understanding. The warring demons is a period of senseless aggression. The hungry ghosts is what we may at times find on Wall Street, endless greed. At the end, human life is the best. It is the state we know best.

1.4 *Is the World Truly an Empty Illusion?*

The true nature of the phenomenal universe has been a prime subject of speculation in all major schools of Buddhism. In order to get rid of suffering humanity has to know what it consists of, how it comes to be. In the earliest period the universe was considered to consist of dhammas (Skt: dharma), the smallest elements thinkable. A dhamma would come into being once a sense organ identified with its experience. So there would be sound dhammas, touch dhammas, taste dhammas, and so on. Whether or not these dhammas existed before and after they were experienced, and what their nature would possibly be before, during, and after this experience, was much debated in the early schools.¹⁶ Each and every phenomenon consists of these dhammas, and our senses create an illusionary world out of these dhamma experiences that are each unsatisfactory. We are in our existence severely addicted to these fluxes of unsatisfactory experiences, but our lust for these very experiences never ceases to urge us on in a quest to find relief. Thus we jump from one delusion to the other. That is how we live now; that is what we encounter in the universe. Even our memories that we may consider to be more or less stable are fickle and all of the time new and unsatisfactory.

In later schools of Buddhist thinking the nature of the dhammas was yet further questioned. In the old schools the nature of the dhammas in past, present, and future was a matter of constant debate, but for many Buddhists they were the only things to have a nature of their own. Now this last matter was

14 Ibid., 125.

15 Chogyam Trungpa, *The Sanity We Are Born With: A Buddhist Approach to Psychology* (Boston: Shambhala Publications, 2005), 113.

16 P. Williams, ed., *Buddhism: The Early Buddhist Schools and Doctrinal History: Theravada Doctrine* (New York: Routledge, 2005).

attacked by one of the greatest thinkers of Buddhist Asia, Nāgārjuna. He is supposed to have lived somewhere in the 2nd century CE, but tradition has it that he was an alchemist who managed to live for six hundred years. By many he is considered to be a second Buddha. Nāgārjuna elaborated the concept of “emptiness” (*śūnyatā*) in Buddhism, or speaking in correct words we should rather say the “non-concept of emptiness.” According to Nāgārjuna all phenomena are empty; they are built up of empty dhammas that have come into being by empty causes. Emptiness is not a thing of its own. It is an attribute, as the colour red for instance cannot exist without a thing being red. Likewise the object can only be seen because of its red colour. Similarly emptiness cannot exist without things being empty, and empty things cannot exist without the attribute of emptiness.

In his principal work, the *Madhyamakakārikā*, Nāgārjuna knows to disrupt all logical human thinking on time, space, and karma. Logic only exists in our mind; no one can say whether it does exist apart from minds experiencing it.¹⁷ Things exist because they have their opposites: fat because thin exists, big because of small. All things exist in relations, not on their own. The great confusion in the world is due to what has been done to the utterances of the Buddha. The Buddha spoke on two, maybe even three, levels. The first level consists of his words. He had to preach in human language, which is conventional language. It is there because someone has uttered a series of sounds that carry meaning. These meanings are a matter of adjustments, of agreements of people with each other. The sounds or words are not meaningful on their own. The second level of talking is to talk in dhamma configurations, but that kind of talk is beyond human understanding. Nobody can follow that language because the sounds do not refer to concrete things, acts, or situations any more as the conventions are cut off. But in the end even to talk of dhammas is conventional. In the end nothing works, even the dhamma talks lose their meaning, even talking of dhammas was a convention. How it truly works in the end eludes the human. The word “*tathatā*,” the “thusness” of things is introduced to discuss the true nature of what we experience. Yet we must be practical. We can be overrun by a bus that is empty in two ways. It is empty because there is nobody inside, or it is empty because it consists of empty dhammas. Yet it can kill a careless pedestrian trying to cross a road. An empty personality, an empty embodiment, yet overrun by emptiness. . .

17 P. Williams, *Mahayana Buddhism: The Doctrinal Foundations*, second edition (New York: Routledge, 2009), 72.

1.5 *The World as Projection*

Yet Madhyamaka was not the end of the speculations on the nature of the universe. In the 4th or 5th century CE two half-brothers, Asanga and Vasubandhu, developed the so-called Yogācāra school. Yogācāra suspected Madhyamaka of nihilism. In the end nothing would last, not even nirvāṇa. Madhyamaka on the other hand suspected the Yogācārins of considering the mind as essential. And it is true, Yogācāra focusses on the mental activities and processes of the human mind. A being is said to consist of six types of consciousness: the consciousnesses of eye, ear, taste, nose, body, and mind. To these two more are added: the manas, the actual functional mind and the so-called “storehouse” or “treasury,” the ālaya or āśraya. In this storehouse all kinds of karmic impressions are stored, “karmic seeds.” As soon as consciousness arises there is an immediate interaction between these seeds and impressions that are experienced as originating from outside. Within no time there arises a distinction between things experienced and a subject that experiences. But these are all misconceptions. Yet the process goes on and ends in a being that considers him-or herself as an individual with all kinds of personal properties and possessions. Deluded as this being is by ignorance or illusions (moha), it will endlessly grasp for things incited by lobha, lust, and it will detest others due to hatred, dveṣa. Thus the entire universe consists of projections in the mind. Yogācāra even dares to raise the question that any child will ask at a certain moment: “How do I know the world I look at is the same as the one my mother sees?” “Does my mother see the same when she calls something “red” when I see it?” No unusual questions but hard to answer. Sure it is known that there are humans who do not distinguish for instance between colours that others consider as completely different. We can notice this in language, for instance Tamil does not distinguish in words between green and blue, both are called “nīla,” which may be a Sanskrit loanword or a Dravidian loanword in Sanskrit, and Tamils are supposed not to see the difference as well, but that is in words, in language, in metaphors. Yet it can be hard to explain the difference between green and blue to a Tamil. Japanese may call the “green traffic light, which in Japan is as green as anywhere else, “blue.”

But this may even go further. Yogācāra even plays on the idea that it might be thinkable that the universe as I know it is completely my own invention, my own projection, even the person that I call “I” is possibly my own invention. Yogācāra will never state these are all indeed my own personal imaginations, but it will neither deny the possibility. After all it is not unthinkable that the being I call “I” created what I call the universe. Even what I call “logical,” even karma could be my own projection, my own invention, which I see reinforced continuously in my own universe, a misapprehension though it can be.

Yet in the āśraya there are the so-called “pure Buddha seeds” as well. Deep down somewhere, overgrown by all kinds of karmic seeds that have come to bloom now that they are touched by impressions that are experienced as coming from outside, there is the pure Buddha nature, the naturally inborn enlightened state. But like a mirror covered by dust can by one stroke be cleansed and shine forward, the mind can be purified by any sudden unexpected act. Enlightenment is not something to be developed; it is to be brought out, it is to be liberated from its unwanted conditions and context. This can be done in this very world, this very universe. The universe might not exist; it might exist as water in a mirage, only visible as long as the illusion takes. Like the sculpture that remains hidden in the stone, liberation only needs to be brought out; the mind can be enlightened by removing what obstructs it.

These ideas are fundamental in the ch’an, son, or zen schools of Buddhism for instance. The enigmatic koan can in its unexpectedness and illogicality bring out the inner hidden identity. But this implies that samsāra, the world as we experience it, and nirvāṇa, enlightenment, are not different from each other. And this is exactly what so many Mahāyāna schools try to emphasize. In Japan these identifications have even resulted in the strangest of imaginations of what in the end distinguishes nirvāṇa and samsāra. There is a tradition of painting “vegetable-nirvāṇa’s,” paintings of vegetables or fruits put together.¹⁸ But instead of pointing out that these images try to show that nirvāṇa is the commonest of phenomena, I rather choose the interpretation that this may be so, but it needs a rare eye to see this. And that is not too common.

In some of the more radical schools of Vajrayāna Buddhism it is accepted that the ordinary human rules and regulations bind a person to samsāra. By breaking the laws one will uproot samsāra and end up in nirvāṇa automatically. The advanced ascetics of these orders are supposed to be able to fly, to live forever, and so on, for the mere reason that for them the ordinary world does not exist anymore. Through this understanding and the almost magic abilities that come with these insights, gravity, even mortality, transgression of ethics and juridical institutions, and so on do not touch them anymore. That is liberation from all illusions for them.

2 Implications for Our Own Understanding of God

Contrary to what many modern western Buddhists think, Buddhism is not an atheistic religion. In Buddhist legends uncountable gods play major parts.

18 J. H. Sanford, et al., eds., *Flowing Traces: Buddhism in the Literary and Visual Arts of Japan* (New Jersey: Princeton University Press, 1992), 201.

The Buddha is often accompanied by Indra and Brahmā, two gods that can be found in all Indian religious traditions. In the Vedic religion above all, Indra was of importance as the king of the gods. In many Vedic hymns he is considered to be the creator of the universe. In some Vedic myths for instance he kills the primordial snake Vṛtra that withheld the heavenly waters. Once Vṛtra's powers were gone the waters could flow freely; Indra could build up the mountain Meru, and he could oversee all cosmological processes. It is true that in later Hinduism, Buddhism, and Jainism he receded to the background, but he still has his position as the king of the gods. As such he reigns over the thunderclouds and he is propitiated in order that the monsoon may be propitious. In Kathmandu up to now Indrayātrā, the "festive procession of Indra," is one of the major festivals of the year. In later tradition it is often Brahmā who creates the world. Both Indra and Brahmā are supposed to be present whenever the Buddha performs one of his miracles. When he comes down from the heaven of Indra, he is accompanied by both these deities.

But what is definitely true: in none of the Buddhist schools or traditions does liberation consist of a kind of merging with or encountering the divine. Gods are just like humans or any other being¹⁹ in this universe, bound to the cycles of karma and rebirths. They live their lives as if they are beyond time, but they are not. Even Indra, the king of the gods, will die one unlucky day once his karmic merits are extinguished. Within Buddhism it is generally accepted that we all live so many lives before we reach our final destinations that we have each lived one or more semi eternal lives as Indra. Being a god is just one of the possible births. It might seem to be an attractive one, but it has its disadvantages. A god seems to live beyond time. He or she is surrounded by other beautiful divines and the trees in heaven bear fruits and flowers at the same time, symbolizing timelessness. There are no seasons in heaven, and if they are there it is just for playful delights. Even musical instruments and jewels grow on the trees. As a god, one can simply pluck a musical instrument from the branches to find out that one can play this instrument effortlessly. This may look attractive, but in the end it will be boring. There will never be the satisfying experience of playing beautiful tunes after years of frustrating attempts. Likewise, in heaven there is no spiritual learning, no effort. The necessity to wonder why the universe works the way it does, why we as humans come across suffering simply is of no importance there. Suffering does not occur. Only after many eons all of a sudden old age is there and death strikes . . . even in heaven. Heaven may seem to be fun for some time, but it is frustrating in the

19 Sometimes the evil, torturing demons in hell are considered to be outside the cycles of birth and rebirth, and sometimes the same goes for the eternally young and beautiful apsaras, the heavenly damsels.

end, inconceivable though this may seem from our viewpoint. A life with the gods in heaven is a life of great sensuality and material abundance. But in the end it does not work.

Now, Indra and Brahmā are major gods in Buddhism and these two gods can be considered as benevolent. But the Buddha had many conversations with all kinds of supernatural beings. He gave sermons to yakṣas, a kind of nature spirits; he spoke with nāgas, mythological snakes; with devas, minor heavenly beings. He showed his brother Nanda the heavens of Indra, which are full of heavenly beauties, the apsaras, and so on. These divine or semi divine beings, wherever they are located in the universe, are at least ambiguous. Often they can be manipulated.

But there are yet other gods that are definitely less benevolent. Worst among these is Māra, the extremely tricky god of the world and of sensual pleasures. It is due to his acts that we get ourselves ever again entangled in this world. In a way, he thus creates the world, and we are only his instruments. It was this god that the Buddha subdued in the night of Bodhi Gaya when he reached his enlightenment. The Buddha was at the moment of reaching his ultimate insights in the processes of the universe. Māra approached him in a great rage. If a human reaches enlightenment and chooses to preach the dharma, this might imply that many will reach enlightenment, following his path and his preaching. It is Māra's intention to play with the world, to play with his creatures, with us. Therefore it was of utmost importance for him to harass Siddhārtha, to withhold him from his enlightenment, and if that would be unsuccessful to prevent him from preaching his dharma. Māra first of all sent his beautiful daughters toward the Buddha in order to seduce him. But the Buddha understood their beauty would never last and they would one day be old women. Māra then has his demonic sons and his army attack the Buddha, but nothing works. In the end he offers the Buddha to rule over the entire universe. The Buddha refuses, now he has seen where Māra's plays and games bring humanity. He proclaims that in his past life as Viśvāntara (Pa: Vessantara) he has fulfilled the perfection of donation (dāna). Therefore he is entitled to his final experience. The goddess Earth is ready to bear witness to his past donations to earlier Buddhas. Māra now knows he is defeated, and he recedes. He will reappear when the Buddha has reached old age and reminds him of his promise that he would die once there would be a Buddhist community consisting of monks, nuns, lay men, and lay women. The Buddha then promises that he will indeed pass into the final nirvāṇa. Thus, it is even due to Māra's acts that the Buddha dies, so the Mahāparinibbānasutta of the Dīghanikāya tells us.

3 Salvation

Now the World may be the result of countless interactions; it may be the result of numberless mistakes, of wrong perceptions and understandings; it may be the result of our unwanted desires, yet salvation is possible even here in this world. The world as such will never develop into a durable paradise. Buddhism has got concrete ideas about an ideal state with an ideal universal monarch ruling, but meanwhile it is accepted that even this will not last forever, even though there are supposed to have been just kings who ruled for ten thousand years for instance. An ideal kingdom of god is not possible in our world. At times a Buddha will be born and for some time release is then possible. But the dharma teachings get lost as well in history. Yet we have to deal with this world. It is in this world that we can find salvation. Human existence is the most profitable for spiritual progress as was stated above. Moreover, there are very practical reasons why living as a human is most advantageous; for meditation a humanlike figure is most convenient; for donation one needs money or other goods. Now in Buddhism animals as well are supposed to be capable of donations and meditations. We can find many examples in the *jātakas*, but for humans it is easier. Animals may develop their own specific forms of wisdom, and they may look like humans if they do so, but Buddhism has got specific imaginations on what an enlightened being should look like. The Buddha himself is more often than not thought of in a humanlike shape. The Buddha has got his thirty-two major body marks and his eighty minor body characteristics. This makes him completely different from any human, yet most of all he still looks like a human. No human, however, has got a protuberance on the head as a Buddha does, nor can an average human cover his front and both ears with the tongue (two of the thirty-two characteristics). Yet a Buddha is supposed to be able so. This changes a Buddha into a human, although a "superhuman."

In all cases what can save the suffering beings is the dharma and nothing else but the dharma. I do not think it is over exaggerated to state as was told above that in Buddhism there is no such thing as "knowledge for knowledge's sake." Knowledge should be part of salvation. In the Pali canonical writings we may come across utterances of the Buddha if it comes to this: monks are for instance not supposed to work as doctors. This is mentioned among other instructions in the *Brahmājalasutta* of the *Dīghanikaya*. There is the danger that there would come to be an "alms relationship," if monks developed their medicinal skills. Furthermore, they should not indulge in the arts, nor in the theatre or in poetry (*Anguttaranikāya* III). If they were to compose Buddhist poetry, the audience might go after the esthetical experience instead

of the message of the dharma. Yet in later Buddhism many art forms were integrated as “skilful means,” as adjustments to what a society, a group of humans, might need to bring them to the dharma. Bodhisattvas of the fifth stadium may be involved in poetry, maths, and medicine, but only to help others to develop or bring out their inner Buddha nature.

Later though many monks qualified as practitioners of medicine or developed proficiency in the arts. In many of the monasteries mathematics, medicine, astrology, and so forth were part of the curriculum of the monks, whereas this is actually against the spirit of the ancient monastic Buddhist tradition that only focussed on liberation. Knowledge for the mere sake of knowledge was suspicious, as was stated above. It was the Buddha’s intention to heal a person from the ultimate experience of *duḥkha*, not to heal just one disease as an average doctor does. If a person fell ill it was important to use this example of the illness to bring that same person to the realisation that suffering will never end without the dharma. Were one to heal a diseased person, one might as well deprive him or her of the possibility to reach enlightenment. Yet this severe spirit of the ancient tradition did not survive, especially not in the more moderately tempered lay tradition.

The problem remains why the world exists. Buddhism does not give any clues, even though the later traditions do have their creation myths and imaginations regarding the cosmological structure of the universe. Buddhism shows humanity a way to deal with existence, a way of escape from this universe. There are explanations though. One of these is for instance that the universe exists so that the dharma can be known to the beings. But the dharma is a way out, a way to deal with this world to ultimately find the exit. If the target of existence is a way out, things would have been much easier if there had not been any such thing as a creation or *duḥkha* at all. There are groups in zen Buddhism, for instance, that claim that the Buddha nature is what we perceive if only we develop our specific view of nature as it is. In other words, it is our mindset that is to be reformed. We can find the enlightened Buddha mind in the world that surrounds us, if only we would look at it the way we should.²⁰ It is our mind that deludes us, but it likewise is our mind that should help us out. But if it comes to this, I am always reminded of the donkey Eeyore in the Winnie the Pooh stories. Eeyore is grateful to god that he gave donkeys a tail to chase off flies, but . . . why did he create flies in the first place?

20 S. Heine and D. S. Wright, *Zen Classics: Formative Texts in the History of Zen Buddhism* (New York: Oxford University Press, 2006), 267.

4 Conclusion

Similarly, Biblical interpretation never proceeds in a vacuum, so the challenge for contemporary interpreters is to understand the Gospel of John's creation traditions in dialogue with modern science.²¹

This quote of Culpepper on Biblical interpretation and the challenges it confronts interpreters with seems to fit without too much effort with the problems Buddhists and Buddhologists likewise face when it comes to present day interpretations of Buddhism and Buddhist doctrines. Many attempts are made in modernity to bring ancient doctrines in line with the insights produced by modern science.²² These recent interpretations can even cause severe problems within Buddhism itself, and the position of prominent Buddhist leaders can even be affected by what they say or think. As an example, the Dalai Lama is seen by many western Buddhists as one of the prominent spokespersons of modern Buddhism.²³ As such, he stated some years ago that if NASA with modern techniques and space labs can show that the ancient Buddhist worldview is wrong, then NASA is right. We have to adjust these ancient ideas to modern research results. Many traditional, conservative Buddhists do not agree with this. Of course NASA may do research, but it needs the spiritually developed "dharma-eye" to recognize the ancient Buddhist cosmology with Mount Meru in the middle and continents and oceans surrounding it. Of course one cannot see this with telescopes and other techniques. This discussion may even go so far that at times it is stated the Dalai Lama is no longer the rightful leader of the Tibetan people. He is supposed to be an emanation of the Bodhisattva Avalokiteshvara (Tibetan: Chenrezig), but there are Tibetans who doubt whether the original Bodhisattva is still present in his embodiment. Since the sixth Dalai Lama (1683–1706), it is accepted that Avalokiteshvara may leave the embodiment even though the Dalai Lama is still alive. Other Buddhists consider these statements of the present, fourteenth Dalai Lama as the very proof that he is indeed an embodiment of a living Bodhisattva. He, as no other, knows how to adjust the dharma teachings to modernity, to what a changing global audience needs.

²¹ R. Alan Culpepper in this volume.

²² Eg.: V. Mansfield, *Tibetan Buddhism and Modern Physics: Towards a Union of Love and Knowledge* (West Conshohocken: Templeton Foundation Press, 2008).

²³ H. H. Dalai Lama, *The Universe in a Single Atom: The Convergence of Science and Spirituality* (New York: Morgan Road Books, 2005).

In the present, scientific research challenges religions and spiritualities to consider and reconsider doctrines, faith, and practices. A religion that is capable of doing so proves itself to be alive; it prevents it from becoming a fossil, as it is able to adapt. Of course, fossils can be scientifically researched. The living tradition can likewise be studied, but the living tradition can also enter the dialogue that modern times need.

The Lost Land and the Earth Mother: African Mythology and the Issue of Land in Southern Africa

Attie van Niekerk

1 Introduction

The English theologian Andrew Kirk observed a fundamental difference between theology in the North and theology in the South. In the North the validity of theology depends on the answer to the question: Does it comply with the requirements of science? In the South the focus is on “its ability to inspire people to be agents and embodiments of the life of God’s new creation in Jesus Christ.”¹

The biblical accounts of creation originated in an existential framework somewhat similar to the approach in the South: “It was not the philosopher inquiring about his origins who spoke in the Creation narratives; it was man threatened by his surroundings. The background was an existential, not an intellectual problem . . . myth belonged originally to the context of survival, an expression therefore of one’s understanding of existence, of one’s understanding of the existence of the threatened-self.” “The Creation myths then had the function of preserving the world and of giving security to life.”²

Many of the motifs that are found in the biblical accounts of primitive time are also found in Africa: the motifs of the offence, the origin of death, the origin of civilization, fratricide, the building of a tower and the flood. But, says Westermann, in Africa south of the equator “the stories of the creation of man are highly developed, but those of the creation of the world hardly exist and, when they do, they appear only by way of additions.”³

The South African Janet Hodgson⁴ says the same as Westermann: in African cosmology there is no radical gap between the spiritual world and natural life, so that religion is not a separate category of thought or experience but part of everyday life. The African symbols related to creation play a role in the present

1 A. Kirk, *The Mission of Theology and Theology as Mission* (Valley Forge, PA: Gracewing Publishing, 1997), 7.

2 C. Westermann, *Creation* (London: SPCK, 1971), 11–12.

3 *Ibid.*, 71.

4 J. Hodgson, *The God of the Xhosa* (London: Oxford University Press, 1982), 17–18.

context. "In the mythopoeic world-view of the traditional African, the mythological past is constantly recoverable in ritual because time is eternal." Hodgson also states that most African myths of origin "are primarily concerned with the origin of man and the world round him. They are not creation stories."

There are African intellectuals who dispute this widely held view, namely that African myths of origin are not creation stories,⁵ but I will not in this article compare the African narratives of the origin of the universe with the scientific narrative, neither will I focus on the implications of the scientific understanding of the universe for the African understanding of God. I will reflect on two aspects mentioned by R. Alan Culpepper in his lecture, *"Children of God": Evolution, Cosmology, and Johannine Thought*, as they relate to the African context: the idea that evolution and the theology of John have a direction and openness towards the future, which has ethical implications, and the theological and ethical significance of creation as seen, inter alia, in the book of Proverbs⁶ and the theology of John.

These aspects will be considered after attention has been given to the way in which the mythical relationship to land has functioned in different contexts of conflict and survival in Zimbabwe and South Africa, where identity and existence have come under threat and where people have used mythical concepts regarding land to acquire power and wealth. In the political struggle against white political domination in Rhodesia (now Zimbabwe), and against apartheid in South Africa the relationship with land played a key role, and it is still an issue surrounded by considerable tension in both countries.

2 The Concept of "The Lost Land" in the History of Zimbabwe

One motif that played a central role in the last half century in the history of Zimbabwe is the relationship of the people with the land, and the ongoing role of the Creator in guarding both the ecology and the people who live from it.

The symbolism of land played a central role in mobilising the rural communities to support the war for liberation from white domination and occupation in the time when Zimbabwe was still Rhodesia, with a white government.

5 E.g. S. Munyai, "The Tenacity of African Traditional Religion in Venda Christianity: a Missional Investigation" (Unpublished, 2015), 11.

6 Culpepper, in this volume.

In Zimbabwe, "(L)and belongs to God, the ancestors and, particularly, to the founders of the lineage, clan or tribe interred therein."⁷ Mwari is the Shona High God, the creator. The spirit mediums are the link between the people and the different tribal spirits and the lesser spirits. At the end of the 19th century the mediums played a vital role in the uprisings of 1894 and 1896–1897 against the colonial occupation of the land.⁸ That was the first Chimurenga (war for freedom). After the uprisings were defeated, two spirit mediums who were leaders of the war, Nehanda and Kaguvi were executed by the colonial forces. They became martyrs, and a source of inspiration during the second Chimurenga that started in the 1960's.⁹

After the first Chimurenga the traditional cult "went into decline, as did resistance to Christianity, the religion of the dominant power. The cult remained alive, however, albeit more secretly as it had been driven 'underground' . . . a kind of mutual appeasement between the White minority and the great majority of Blacks seemed to have emerged."¹⁰ As the number of white settlers and their political dominance increased, resistance mounted again. The white government respected the traditional chiefs, and many (not all) of these chiefs tended to cooperate with the government. Whereas some chiefs became suspect as government collaborators and "sell-outs," the mediums moved from token resistance against colonialism to active cooperation with the guerrilla fighters. The spirit mediums shifted their political allegiance from the chiefs of the present to the chiefs of the past, the *mhondoro*, who could of course only be made available by these mediums. It was "a veritable renaissance of traditional religion."¹¹ The mediums who took an interest in politics became the main force for nationalist sentiments after the nationalist movements were suppressed in 1964:

In rural areas meetings became political gatherings . . . the past heritage was revived through prayers and traditional singing, ancestral spirits were evoked to guide and lead the new nation. Christianity and civilization

7 G. Huizer, *Folk Spirituality and Liberation in Southern Africa* (Bordeaux: Centre d'étude d'Afrique Noire, Domaine Universitaire, 1991), 13.

8 Ibid., 17–21.

9 B.-M. Tendi, *Making History in Mugabe's Zimbabwe: Politics, Intellectuals, and the Media* (Bern: Peter Lang, 2010).

10 Huizer, *Folk Spirituality*, 22.

11 M. L. Daneel, "Environmental Reform—A New Venture of Zimbabwe's Traditional Custodians of the Land," *Journal of Legal Pluralism and Unofficial Law* (1996), 352.

took a back seat and new forms of worship and new attitudes were thrust forward dramatically. . . . the spirit pervading the meetings was African and the desire was to put the twentieth century in an African context.¹²

In an effort to counter the influence of the mediums, the Rhodesian government shot some of them, persuaded some to collaborate with the government with gifts and deference (a strategy that worked with many traditional chiefs) and “dropped pamphlets from the air over the guerilla-held areas, in the guise of anti-nationalist admonishments from local spirit mediums.”¹³

The spirit mediums facilitated the transfer of authority from the traditional chiefs to the guerillas. The fact that the guerillas claimed that they were fighting for the reclaiming of the land from the white owners played an important role to win the confidence of the mediums. From their side, the guerillas observed the taboos and rituals prescribed by the mediums. Liberation politics and traditional religion merged: “The increased authority and effectiveness of the *mhondoro* medium aided the guerillas in winning over the villages. Many traitors and ‘sell-outs’ were condemned as witches.”¹⁴

Inus Daneel, who did extensive research in these same communities, related how the senior tribal spirits commanded that people should get involved with the political struggle to reclaim the “lost land,” in 1972. That was a turning point in the war. Most of the people supported the guerillas for religious reasons and not for ideological reasons.¹⁵ The present president of Zimbabwe, Robert Mugabe, was one of these freedom fighters.

3 The Issue of Land in Independent Zimbabwe

After independence in 1978, the Mugabe government concentrated on modernizing the farming methods of the black farmers in the so-called Communal Areas, rather than on large-scale land distribution. By the late 1990s, however, Mugabe’s popularity dwindled due to a steep economic decline. Mugabe

12 Huizer, *Folk Spirituality*, 25, quoting a certain Shamuyaria.

13 Ibid., 28.

14 Ibid., 29–30.

15 Interview with I. van der Linde, *Vrye Weekblad*, 8 February 1991, 14.

turned on the white farmers and Great Britain and supported the invasion of commercial land by war veterans and other landless people.¹⁶

President Mugabe gradually developed his own “theology of land”. . . . As the political and economic crisis in Zimbabwe worsened between 2000 and 2003, the state embarked on an intense propaganda campaign. Facing an increasingly popular opposition, the state adopted a two-pronged strategy of marketing its programmes while subjecting the opposition to violence and negative publicity. Using various media, the propagandists sought to portray the ruling party (ZANU-PF) as a sacred movement fulfilling prophetic oracles that the black majority would reclaim the lost land. State functionaries systematically appropriated religious ideas, with concepts from Christianity and African traditional religions being used to buttress political statements. The controversial land reform programme was couched in religious terms and notions like sovereignty attained mythical proportions.¹⁷

In the urban areas, Mugabe would couch his rhetoric in Christian terminology. A royal mythology was built on Mugabe as “messiah, son of God, new Moses, supreme leader, divine king and breadwinner.” He was portrayed as an analogy of the suffering messiah and redeemer of the Bible. In rural areas, on the other hand, he would focus on Traditional African Religion. Here he was portrayed as the legitimate heir of Nehanda and Kaguvi, the two spirit mediums who were executed at the end of the first Chimurenga (Machingura 2012: 208, 259, 260). “Mugabe made use of traditional Zimbabwean religion as a way of making land the central issue in the Third Chimurenga.”¹⁸

There have been numerous reports that Mugabe’s cronies, and not the poor and landless in whose name the land was taken, benefitted from the land restitution programme. Agricultural production, food security and the economy as

16 M. Spierenburg, “Staking Claims, Struggling about Identities; the Role of Spirit Mediums in Conflicts about Land in Dande, Northern Zimbabwe,” in: Van der Borgh, E. (ed.) *The God-given Land. Religious Perspectives on Land Reform in South Africa*, Vol. 2 of the SAVUSA POEM proceedings series 2009, 17; Tendi, *Making History*, 81.

17 E. Chitando, “‘In the Beginning Was the Land’: The Appropriation of Religious Themes in Political Discourses in Zimbabwe, Africa,” *Journal of the International African Institute* 75, 2 (2005), 220–239.

18 Tendi, *Making History*, 93.

a whole declined sharply. The symbol of the lost land was also used for a most constructive purpose.

4 The Use of the Concept “Lost Land” for Ecological Purposes in Zimbabwe

Inus Daneel¹⁹ played a key role in a new movement that took place after the independence of Zimbabwe in 1980. During a period of “intensive field research in the mid-eighties,” in which he was investigating the role of religion in the liberation struggle, he was “in close touch with ex-combatants, chiefs, mediums and African Independent Church leaders. Endless discussions about the military struggle to recapture the lost lands led to consideration of land and environmental issues.” Daneel realized that the chiefs and mediums were frustrated because the new government did not recognize them. The mediums ascribed the prevailing droughts to the failure of the government to recognize the role of the spirits in the war for liberation. The chiefs and the mediums saw the rampant deforestation, particularly in the resettlement areas, as an opportunity to gain influence again. A new movement, the War of the Trees, emerged. It took on the character of a liberation struggle, based on “the same religious tenets and holistic African world-view as the struggle for political independence.” The land that was lost to the white settlers was now lost in ecological degradation.

Given their marginalized political position, the chiefs and mediums now joined forces. Both were dependent on and linked to the senior regional ancestors, upholding “a holistic African world-view in which the living and the living dead, the creator-divinity and all of creation are inseparably linked in a seamless totality on one continuum. . . . the maintenance of the equilibrium between a healthy environment and the well-being of the humans living there is considered to be the guardian ancestors’ prime concern.”²⁰

It was not a return to the past, but a contextual combination of old and new. They were, for example, joined by ex-combatants, who were frustrated because they did not share in the privileges of political liberation. Preserving the environment offered them a means of job creation. The ancestors symbolized “much more than the localized spirit interests of the old religion. They represent a new black identity and cultural awareness in which people take

19 Daneel, *Environmental Reform*, 347.

20 Ibid., 348.

pride; they represent liberation from colonial oppression, the recent birth of a nation, as well as that nation's ambition for development and progress."²¹

The hope of reclaiming the lost land is well illustrated in one of the ceremonies where Chief Makumbe of the Gutu district proclaimed that once the trees were planted "the rains will abound, the *mhondoro* spirits will return and the *njuzu* will re-inhabit the pools."²² The *njuzu* spirits are benevolent spirits that provide traditional female healers with healing powers, medicinal knowledge and herbs so that they can successfully heal their patients, particularly barren women.²³

In the process, the role of the creator was changing: instead of merely requesting the senior ancestors to forward a local plea to a seemingly remote oracular deity, as is common in rain rituals, "god is addressed more directly as an insider, one who is present at the ceremony. . . . (the) ceremonies affirm Mwari's traditional role as ecological liberator, that is, as rain-giver, who periodically liberates selected regions or the entire country from crippling droughts. In this respect the creator god's perceived role in the third *chimurenga*, the green struggle, is innovatively contextualized within the age-old traditional religious framework."²⁴ As with the political struggle, where "sell-outs" were regarded as wizards, wanton tree felling and water pollution were now stigmatized as a form of wizardry punishable by fines or, in extreme cases, banishment from the ward or chiefdom where the offense took place.²⁵

The main elements of this movement, according to Daneel were: unity of purpose and cooperation between the key functionaries of the Mwari cult at the local district level, and the interplay of natural forces, earth keepers, ancestors and the "creator god."²⁶

The Zimbabwean Institute of Religious Research and Ecological Conservation (ZIRRCO), the institutionalized and extended version of Daneel's research team, was founded in 1984. This body took responsibility for the initiation and development of two affiliated organizations: the Association of Zimbabwean Traditional Ecologists (AZTREC) which was formed in 1988, and the Association of African Earthkeeping Churches (AAEC), a grass-roots environmental and tree-planting movement composed of 180 African

21 Ibid., 354, 364.

22 Ibid., 363.

23 M. L. Daneel, "Life Around the Pool in African Independent Churches," in *New Faces in Africa—Essays in Honor of Ben Marais*, J. Hofmeyr and W. S. Vorster (eds.), (Pretoria: UNISA Press, 1984).

24 Daneel, *Environmental Reform*, 364.

25 Ibid., 366.

26 Ibid., 365.

Independent denominations, which was founded in 1991.²⁷ By 1996 AACE comprised some 120 member churches, mainly prophetic African Independent Churches, with an overall membership of some 2 million adherents throughout Zimbabwe.²⁸

In the first fifteen years of ZIRRCO's existence—the period during which Daneel acted as director—an estimated 12–15 million trees were planted.²⁹ Could a similar movement be expected in South Africa?

5 The Mythical Relationship to Land in the Struggle against Apartheid in South Africa

In the 1980's the issue of land was prominent in the struggle between the apartheid government and the liberation movements. However, there is little evidence of a movement based on a relatively pure Traditional African Religious tradition as existed in rural Rhodesia and later Zimbabwe.

The image of Africa that emerged in the Black Consciousness movement in South African townships of the 70's, such as Alexandra and Soweto had much more in common with the ideas and ideologies of prominent politicians and writers in the rest of Africa: movements such as Negritude of president Leopold Senghor (also a renowned French poet) and African Personality of Kwame Nkrumah of Ghana.

Cartey called the symbol of mother and earth, the earth of Africa, a dominant motif throughout modern African literature at the time.³⁰ In an anthology of African poetry, jointly edited by Leopold Senghor of Senegal and Aimé Césaire of Martinique, the "chief celebrant is the Black Woman, the Earth Mother, the anthropomorphic symbol of primal sensuality."³¹

While the Black mother predominated as a source of love and affection, of rebirth and inspiration, the father was throughout a symbol of failure and alienation. Albeit indirectly, he was disturbingly linked with that God, described

27 M. L. Daneel, *Christian Mission and Earth-care: an African Case Study*. *International Bulletin of Missionary Research* 2011, The Free Library (Accessed 6 October 2014.09.17) <http://www.thefreelibrary.com/Christian+mission+and+earth-care%3a+an+African+case+study.-a0261080602>.

28 Daneel, *Environmental Reform*, 355.

29 Daneel, *Christian Mission*.

30 W. Cartey, *Whispers from a Continent. The Literature of Contemporary Black Africa*. (London: Heinemann Educational Books, 1969) 3.

31 K. Awoonor, "Tradition and continuity in African literature," in R. Smith (ed.), *Exile and Tradition*, (London: Heinemann Educational Books, 1976) 1550.

by Serote, who as an old man created the world rather absentmindedly and carelessly (Africa dropped from his back pocket) and eventually, as ineffectual as the fathers, only relates to earth as a spectator. Serote blamed God that he accepted no responsibility for all the misery around him. In “Looking at sorrow” God is listed with the sky, moon and stars that look on passively while people bleed and die. Suffering, disaster, blood, tears and screams are part of a mystery for which God is somehow held accountable.

This is in some respects in line with the remark of I. Ritchie that, in many African creation myths, the fallen state of humanity seems due to an oversight (usually a *human* oversight), which is associated with a tendency to fatalism. Mbiti ascribed this tendency to a *lacuna* in Traditional African Religion, the absence of any solution to the human dilemma after the Fall.³²

The seventies and eighties, however, were times of activism. Liberation was in the air. Unlike in Rhodesia, Christianity did not take a back seat. Strong church leaders such as Desmond Tutu and Alan Boesak were prominent leaders in the struggle against apartheid. The Theology of Liberation contextualized Christian faith in and combined it with the struggle for liberation. African Theology contextualized it in Traditional African Religion. Traditional values were brought into play again within the context of the church and modern culture, such as the well-known concept of *Ubuntu*, a term which refers to the wide-spread African view that a person is a person through and with other people, which was often preached by Christian leaders such as Desmond Tutu. Thabo Mbeki, who succeeded Nelson Mandela as president, wanted to introduce traditional values into society with his propagation of an African Renaissance, and Jacob Zuma, his successor as president, brought back various traditional customs, such as polygamy—he has four wives at the moment. But it was never in such a pure form and big scale as in Rhodesia/Zimbabwe.

The issue of land was one of the main political driving forces and is still a very strong motive in politics. In an article entitled, “A Black Christology: A new beginning” published in the *Journal of Black Theology*, the Christian theologian Thakatso Mofokeng referred to the importance of land in Black Culture in the late 1980's:

As far as the Black cultural tradition is concerned, land is the mother and Black people are ‘sons and daughters of the soil.’ It gives Black people an identity and in turn receives an identity from them . . . Land is the source of livelihood . . . It is also of religious significance as the location of sacred

32 I. Ritchie, *Creation in African Thought*, <http://www.escape.ca/~iritchie/ATSC.Chapter3.htm>, (Assessed on 01.07.2014).

places where we dialogue with the founding fathers of the Black community . . . Tearing these people away from this land is sacrilegious (sic). The land is also socially and psychologically significant . . . We always come back to our roots . . . The land is also the bedroom where we put our departed loved ones to bed. It is also the house of our ancestors. We always go back to them to have our dialogue with them, to retain and promote our sense of community. Without them we lose our sense of continuity and history. Without them and their land we float like a ship without an anchor and compass on a stormy sea . . .³³

Mofokeng here took up a dominant theme in the African literature of the time and used it in the political context.

In the 1970's, in Soweto and Alexandra, the two most prominent townships around Johannesburg, there were a number of Black Consciousness poets who published in English, such as Oswald Mtshali, Wally Mongane Serote (already quoted above), Sipho Sepamla and Pascal Gwala. For some reason, almost none of their books were banned. They took up basic motifs of Traditional African Culture, such as the cyclical concept of time, and earth who is our mother. They combined these motives and applied them to the political struggle: we return to be reunited with the earth, our mother, in death, as part of the circle of life and death. Death, in this case the deaths of political activists, becomes the source of life and freedom. This was also a strong recurrent theme in the sermons of the black theological students at the University of the North, where I was lecturing at the time.

This thought-pattern is deeply embedded in African funeral rites. Death is traditionally seen as the beginning of a new stage of life, as rebirth into a new, better life. The corpse was often buried in the shape of an embryo. There were symbols for the womb and for the navel. Corn seeds are thrown into the grave, as a symbol of new life.³⁴

The thought-pattern that death leads to life had been applied to politics before. In *A Grain of Wheat* that was first published in 1969, Ngugi wa Thiong'o dealt with the tensions and struggles in Kenya before independence. The book takes its title from 1 Corinthians 15:36, which appears on one of the first pages,

33 T. A. Mofokeng, "A Black Christology: A New Beginning," *Journal of Black Theology in South Africa* (1987) 1–17, here 11.

34 T. Sundermeier, "Todesriten und Lebenssymbole in den Afrikanischen Religionen," in *Leben und Tod in den Religionen*, (Wissenschaftliche Buchgesellschaft, Darmstadt, 1980) 253 and H. Häselbarth, *Die Auferstehung der Toten in Afrika* (Gütersloh: Gerd Mohn, 1972) 34, 35.

before the text itself begins: "Thou fool, that which thou sowest is not quickened, except it die. And that which thou sowest, thou sowest not that body that shall be, but bare grain, it may chance of wheat, or of some other grain."

A young leader of the resistance movement told his friends that they should take up their cross, deny their fathers and mothers, and serve their one Mother, Kenya. He said that Jesus failed because His cross did not change anything: "In Kenya we want a death which will change things, that is to say, we want a true sacrifice. But first we have to be ready to carry the cross. I die for you, you die for me, we become a sacrifice for one another. So I can say that you, Karanja, are Christ. I am Christ. Everybody who takes the Oath of Unity to change things in Kenya is a Christ."³⁵

The basic message of the cross, that life has come to us through the death of Jesus, is here taken as a pattern that can be repeated endlessly in different contexts, including the political context, without any faith in Christ Himself.

In the years that Ngugi's book was reprinted repeatedly, the South African poet M. W. Serote used many symbols to express the idea of life-through-death. The tree, for example, has a cyclical pattern: the tree grows up and the fruit falls down, to become a new seed in the earth and a new tree that grows up again. The earth remains the basic source of life. "I'm the seed of this earth/ ... I'm the fruit of this earth ..." To be a seed has a political meaning.

It is a black seed, looked after
by black saints and prophets
by Sobukwe Mandela Sisulu
Fanon Malcolm x George Jackson³⁶

The first three mentioned here were South African anti-apartheid activists: Robert Sobukwe was the founder of the Pan Africanist Congress and was in house arrest at the time; Nelson Mandela and Walter Sisulu were members of the African National Congress and were in detention on Robben Island at the time. Frantz Fanon was the well-known revolutionary writer from Martinique. Malcolm x and George Jackson were black political activists in the USA—both died violently, Malcolm x in 1965 and Jackson in 1971.

The pattern embraces not only time, but also the cyclical continuity of rise and fall, up and down, life and death. The tree, the image and bearer of life, has a time to grow and spread its branches, and a time to dry out, shed leaves and crash to the ground. Existence takes place in the shifting balance between

35 Ngugi wa Thiongo, *Heinemann's African Writers Series*, 7th reprint, 78, 83.

36 M. W. Serote, *The Seed and the Saints* (Johannesburg: Ad Donker, 1975) 34.

the forces of life and the forces of death. "The trees' understanding of seasons could caress my heart," writes Serote.

when fruits are ripe they fall to the ground
and leave a seed
ah
how can we forget
Luthuli's voice . . . Sobukwe . . .³⁷

Albert Luthuli was a devout Christian. He was often detained because of his resistance against apartheid, and he was Africa's first winner of the Nobel Prize for Peace and president of the ANC until his death (under mysterious circumstances) in 1967. In 1952 he issued a statement to the press "*The Road to Freedom is via the Cross*," an idea that was taken up by both Christians and non-Christians.³⁸

The fruit of freedom is the legacy that the black heroes and martyrs leave the following generation. The present generation must remember their suffering and continue their work. The poet wants to bear fruit by dying for the coming ones:

oh you black mother
black woman
mama
your smile that paves through the wounds and the hurt
breaks me
like a twig loaded with green leaves and ripe fruit
mama
let me fall to the earth let me fall to this soil
let my rest be a seed
i will take this fall
gently, gently,
with my bare feet and my naked body.³⁹

The way that the symbol of mother and earth is used in the context of political activism is also meant to define African identity. To put it differently: the search for political freedom is also a search for cultural freedom, the search for

37 M. W. Serote, *Behold Mama, Flowers* (Johannesburg: Ad. Donker 1978) 23.

38 Cf. <http://africanhistory.about.com/library/biographies/blbio-lutuli.htm>.

39 M. W. Serote, *No Baby Must Weep*. (Johannesburg: Ad Donker, 1975), 42.

a free and authentic African identity. Political freedom and cultural identity merge. Awoonor commented on the unity described by the Négritude poet, Leopold Senghor, between earth, mother, Africa and night. The opposition between Europe and Africa is that of day and night, of White and Black.

"Senghor makes the choice to be Black, washed clean of all the contagions of civilized men . . . The search for identity connotes a spiritual return to Africa, to the mythical landscape populated by the dead ancestors, the memorials of childhood, and the presence of the mother . . . the poet invokes the Black woman, the maternal principle, who is at the center of the return to the African world . . ." The African night stands in opposition to the light of Europe: at this hour, at the call of the woman, the Earth Mother, the ancestors gather to talk to their children.⁴⁰

The unity with the earth, in this case the polluted urban earth, at night is expressed in a striking poem by Serote, "Alexandra". There is intense longing as well as a profound fear of Alexandra. The interplay between love and fear comes close to the experience of a *mysterium tremendum et fascinans*. In the circle of life and death, birth becomes a form of death and exile, and death is homecoming that brings new life. Although at first fear and alienation are predominant,

we have only one mother, none can replace,
Just as we have no choice to be born,
We can't choose mothers;
We fall out of them like we fall out of life to death.

The township has scared him, humiliated him and been cruel to him, but still:

I have gone from you, many times,
I come back.
Alexandra, I love you;
I know
When all these worlds became funny to me,
I silently waded back to you
And amid the rubble I lay,
Simple and black⁴¹

40 Awoonor, *Tradition*, 167, 168.

41 M. W. Serote, *Yakhal' Inkomo* (Johannesburg: Renoster Books, 1972), 22–3.

It seems that the symbol of the Earth Mother, with others, represents a sense of having an African identity, different from the Western identity. It also represents a mood that was very prevalent during the struggle against apartheid, that freedom and liberation can only be found through suffering and death, which included the destruction of buildings and infrastructure. The question is to what extent this symbol can now represent a movement towards life, and towards solutions to the present ecological dilemmas that threaten life in our part of the world.

6 The Symbol of the Earth Mother and the Role of the Past in the Search for a Healthy Ecology

The symbol of the Earth Mother plays a role in the search for a healthy ecology in various contexts in the world today: it has been taken up in some of the more esoteric Gaian and New Age movements, where *Mother Earth* is prominent, as well as in Christian theology.

An example of the way the symbols of Earth, Creator and Ancestor are used in mainstream African theology can be found in Desmond Tutu's recommendation of Kapya John Kaoma's book *God's Family, God's Earth: Christian Ecological Ethics*. Tutu writes: "Just as we fought against colonialism, racism and apartheid, we must unite to fight this life-threatening problem." The problem he refers to is the ecological crisis: "We are one Earth family, God's Family. We must protect the rights and dignity of Creation without overlooking those of the poor . . . The Earth is the Lord's; thus a sacrament of ecologically interconnected beings held together in Jesus Christ, who, as Kaoma argues, is the Creator, the Life and the Ecological Ancestor of all life." Kaoma used both African and Christian traditions.⁴²

In Africanist circles, also, the relation to the land and the search for a healthy ecology has been linked.

Wally Serote was appointed to oversee the construction of Freedom Park, a national monument where those who died in defense of the country are commemorated. He was the chief executive of Freedom Park until 2010.

In 2013, when his book *Rumours* was launched, Serote described the rituals and ceremonies that were performed at Freedom Park in a symbolic cleansing of the land and people, since the soil of South Africa was soaked in blood and needed cleansing. "He ended by saying that climate change now presented a

42 K. J. Kaoma, *God's Family, God's Earth: Christian Ecological Ethics of Ubuntu* (Oxford: African Books Collective, 2013).

different challenge to the land, where grasses in certain places had stopped growing and this had chased away the natural food of the predators. As a result there have been cases of lions carrying off children from villages. Africans need to communicate with the land and live with it as one in the old way. He said that he believes that this could reverse the desertification of the land.”⁴³

When Serote used the symbol of the death of political heroes becoming the seed of freedom and life, one could observe the huge energy amongst masses of people who had in some way a similar idea that their struggles would produce freedom through suffering and destruction. And Inus Daneel could initiate a mass movement amongst rural people who wanted to recover the lost land by revitalising traditional concepts of the land and traditional religion. But how much does the sentiments of Serote, to restore the relationship with the land “in the old way,” resonate with others? How many Africans think of climate change in a life world where lions carry off children from villages?

Serote here continues the idea of restoring the past that occurred several times in the black urban poetry of the seventies, for example, in 1977 Mafika Pascal Gwala of Soweto published a book of poetry under the title *Jol'iinkomo*. This is also the title of the last poem in the book. This poem ends as follows:

Promise your brother,
The cattle shall have herded home
to our ancestral kraal.
Jol'iinkomo!
African shall be one in her past.
Jol'iinkomo!⁴⁴

Zimbabweans who support Mugabe often give a similar reason for supporting him: he is restoring the past, he makes a new beginning possible.

In 2003 we did some focus group sessions with people in a South African township, in a landscape dominated by coal mines and huge industries. In a discussion with a group of jobless youth on the ecology, they made the following statement: “The mines and industries have disturbed our ancestors by disturbing their graves, so that they are restless; the only solution is to go back to the past. The mines must go, the industries must go and the farms must go, because they occupy the land that can be used for traditional tribal farming. Mugabe is a hero, because he is restoring the past.”

43 Amy Mongane, Wally Serote Launches *Rumours*, <http://jacana.bookslive.co.za/blog/2013/06/25/mongane-wally-serote-launches-rumours/> 2013.

44 P. Gwala, *Jol'iinkomo* (Johannesburg: Ad.Donker, 1977), 70–1.

In this longing for the past, the search for a healthy ecology remains a rather romantic ideal: some believe that, in the past, unlike today, people were healthy and strong, cattle were fat, good rains fell and the land was fertile.

7 The Unresolved Conflict

The aim of restoring the past is not always so clearly formulated, but Zimbabwean President Robert Mugabe remains a very popular figure in Southern Africa. In August 2014 Mugabe became chairperson of the 15-member Southern African Development Community (SADC), where he is a popular figure. How should we understand the popularity of Mugabe in the region's official *development* institution, given the fact that he severely damaged the modern economy of his own country? Is there an understanding of what development should be, and what the relationship to the land should be, that is different from the understanding of development in the West?

Ezra Chitando gives one explanation: "Mugabe has posed as the last standing advocate of black pride and economic liberation. This has seen him receiving wide acclaim as a consistent revolutionary in the global South. Feted as an African liberation icon, Mugabe has had African crowds in raptures with his fiery rhetoric on black pride and dignity, even as his domestic record is heavily compromised by inefficiency, rampant corruption in the public sector and lack of creativity in addressing the country's multiple problems."⁴⁵

Two multi-award winning writers, the brothers vs and Shiva Naipaul, (vs won the Nobel Prize in 2001) give another reason. They observed that the externalities, the luxuries of the modern world, once acquired all too often led to disillusionment and a desire to destroy. They used the term "African nihilism" to describe the urge to destroy the remnants of Western colonialism in post-Uhuru Africa. They ascribed this urge to the fact that Western culture has had a devastating effect on the traditional African world and identity. Some people found Western culture very attractive, but it excluded them. And once they had it, they felt misled. It robbed them of their own selves, their souls, their identity. If this foreign culture cannot be absorbed and assimilated, it must be destroyed.⁴⁶ Being attracted by modern culture and the wish to destroy stand in conflict with each other, and this conflict has not been resolved. Mugabe's

45 E. Chitando, N. Taringa, T. P. Mapuranga, "Zimbabwean Theology and Religious Studies during the Crisis Years (2000–2008): A Preliminary Study," *Studia Historiae Ecclesiasticae* 40.1 (2014).

46 S. Naipual, *A Hot Country* (London: Abacus, 1984), 184–5.

ranting against the West, and England in particular, did not prevent him to maintain a very luxurious lifestyle, and his wife Grace to spend huge amounts in Harrods, London.

This unsolved conflict is made visible in the fact that Mugabe is the leader of the body that must promote development in the region.

The conflict has its origin in the meeting of different cultural traditions, modern Western culture and traditional African culture. The way in which productivity, the promotion of life, is understood in the different cultural traditions is a case in point.

The Western approach to land is to a large extent a de-mystified approach. Economists regard land merely as a means of production. This approach has economic results: Western farmers have developed methods and techniques that have made impressive production on farm land possible. Not only modern methods, but private ownership is important for production as well.

The Old Testament scholar Claus Westermann wrote that the world view introduced in Genesis 1–11 opened the way for science and technology to develop. The first astronauts who went to the moon read from the first chapter of the Bible before setting off for the moon, with very good reason: The presentation of Genesis 1 gives the first indications of a scientific understanding of how the world came into being. Genesis 1 is followed by philosophical-theological and scientific eras of reflection on the whole and the origin of the world; it is preceded by the Creation narratives of the primitive cultures and the myths of the great polytheistic cultures. It does even more: it still serves to warn and correct the way in which this development has taken place in our time.⁴⁷

Today we would put more emphasis on the life-threatening role of this modern development. The modern secular relationship to land did not only lead to massive production and economic growth, it is also threatening the well-being of the planet. A new relationship to land is needed, and the question is if the African tradition can play a role in this.

The combination of earth and mother in the African context has consequences for the way in which one regards productivity.

In modern African literature at the time, productivity was linked to the symbols of earth and mother: "Here, too, is the relationship between earth and woman . . . Earth as well as woman should be productive, for earth is mother; its productivity not only ensures the continuity of the clan but should be ensured by the clan."⁴⁸ Traditionally, the clan ensured the fertility of the land through religious means: a good relationship with the ancestors ensured rain

47 C. Westermann, *Genesis 1–11* (Augsburg: Augsburg Publishing House, 1976), 1, 37–8.

48 Cartey, *Whispers from a Continent*, 344.

and good crops, while a disturbance in this relationship caused disaster and death. Several examples can be quoted. Kenyatta related how, in African tradition, ceremonies were performed to cause the rain to fall, to purify and bless the seeds, and to purify the crops:

In Gikuyu life the earth is so visibly the mother of all things animate, and the generations are so closely linked together by their common participation in the land, that agricultural ritual, and reverence for ancestral spirits, must naturally play the foremost part in religious ceremonial... Communion with the ancestral spirits is perpetuated through contact with the soil in which the ancestors of the tribe lie buried... the earth is the most sacred thing above all that dwell in or on it...⁴⁹

Soyinka talked of the ecstasy, the frenzy of religious rites which satisfy the “needs of humans to swill, gorge and copulate on a scale such as Nature’s on her monstrous cycle of regeneration... Man reaffirms his indebtedness to earth, dedicates himself to the demands of continuity and invokes the energies of productivity. Reabsorbed within the communal psyche he provokes the resources of nature: he is in turn replenished for the cyclic drain in his fragile individual potency.”⁵⁰

Modern scientific people do not try to “invoke the energies of productivity” or to “provoke the resources of Nature” by way of ecstatic rites; they use science and technology, because they have a different religious tradition that goes back to the Old Testament where the prophets of the God of Israel rejected the fertility rites of the Canaanite Baäls.

Today, in Southern Africa, we have a different mix of cultural and religious symbols and myths from what it was in the time of the Old and New Testaments. These symbols and myths clash and combine in different ways all the time. While the modern global economy uses science and technology for massive production and consumption that are increasingly recognised as being destructive and life-threatening, the traditional African concepts of the earth and mother, and the religious view of productivity still play a role.

The different views on our relationship to the land, to the earth, have not been reconciled and that tension has a destructive effect. For example: what Mugabe does is a threat to Daneel’s initiatives. In 2011 Daneel wrote about plans

49 J. Kenyatta, *Facing Mount Kenya. African Writers Series 219* (London: Heinemann 1985), 21, 243–254, 316.

50 W. Soyinka, *The Bacchae of Euripides, A Communion Rite* (London: Eyre Methuen, 1973), xii.

“for two major game conservancies: one in the communal lands mainly for the protection of the endangered klipspringer antelope, and the other for a joint project of collective, interracial game farming, incorporating some fifty farms to the east of Masvingo town. These plans, already approved by ZIRRCON, had to be abandoned because of the farm invasions allowed by Mugabe in the year 2000. A few years later an estimated 85 percent of the entire game population on Zimbabwe’s farms had been destroyed. So much for game conservation and protection of the country’s natural resources!”

We are, in a sense, in a similar context as that which, according to Westermann⁵¹ was the existential framework of the Biblical accounts of creation: the context of survival and of the “threatened-self.”

8 The Way Forward

Daneel and Mugabe have one thing in common: they both have used the concept of the lost land to promote their respective aims; and both did so in two different, even conflicting, ways in different contexts: in one context they both used traditional African concepts and in the other they both used Biblical concepts.

The fundamental question still to be solved, it seems, is the unresolved conflict between the powerful attraction of two diverse cultural traditions: modern Western culture and traditional African culture. Can Culpepper’s reflection on the two Biblical narratives of the origin of the universe and the scientific narrative help us in this regard?

Culpepper describes another conflict: the opposition between light and darkness that sets up the oppositional dualities of the Fourth Gospel:

... it is not an ontological, metaphysical, or eternal dualism. The opposition is between persons who are empowered or transformed by ‘the light’ and those that are not. Those who are not of ‘the light’ oppose it, but shall not overcome it. These observations are important because they establish the divine identity of Jesus, the place of the cosmos as the creation of the Logos, the ultimate value of life, and especially the potential of human life lived in relation to its creator through the revelation disclosed through Jesus.⁵²

⁵¹ See above, Westermann, *Genesis*, 11, 12.

⁵² Culpepper, in this volume.

This opposition between light and darkness is found today in both the modern Western culture and traditional African cultures in Southern Africa. Both, and their diverse combinations, often have a destructive impact on nature, on the creation of God. In both contexts there are persons who are empowered or transformed by “the light”. The opposition between these two cultures is not as fundamental as the opposition between light and darkness, and life and death. Those who see the light, that is, who confess their faith in Jesus, should be empowered and transformed towards an ethical quality of life;⁵³ this should happen in both the modern Western and traditional African contexts.

Culpepper’s⁵⁴ view of evolution is that it is directed at the future: “... becoming is continuous, open-ended, and therefore ethically significant.” The same is found in the John’s gospel and epistles.

This is in stark contrast with the traditional African concept of time, which is related to events that happen: “The future is virtually absent because events which lie in it have not taken place ...” According to traditional concepts “time is a two-dimensional phenomenon, with a long *past*, a *present* and virtually *no future*.”⁵⁵ The absence of the future means that one does not plan for the future but wait for events to happen, which is related to the tendency to fatalism, and the *lacuna* in Traditional African Religion, the absence of any solution to the human dilemma after the Fall, that was mentioned above. Mbiti correctly states that African peoples are discovering the future dimension of time, but that it is a slow process and the change from the structures built around the traditional concept to structures built around planning for the future is not smooth: this “may well be at the root of, among other things, the political instability of our nations.”⁵⁶ The history of Zimbabwe seems to provide a good case study of this statement.

Both cultures in the South African context need to be transformed by what Culpepper describes in this volume as the theological and ethical significance of creation as seen, inter alia, in the book of Proverbs. The Jewish sages “connected creation with wisdom, ethical instruction, and ultimately the Law.” The theology of John links up with this tradition: “John asserts that the Logos, like Wisdom, was the agent of creation. Wisdom brought into being living things,

53 C. J. H. Wright, *The Mission of God's People. A Biblical Theology of the Church's Mission* (Grand Rapids: Zondervan 2010), 93, 94.

54 Culpepper, in this volume.

55 J. S. Mbiti, *African Religions and Philosophy* (London: Heinemann Educational Books 1974), 17.

56 Mbiti, *African Religions*, 27–8.

and then gave to those who would receive it the revelation that leads to a higher way of life.”

The ethical implications of John's writings that Culpepper refers to in his article, is of vital importance in our context. The destructive impact that we as people from both cultures have on human life and dignity, and on creation, indicates that we cannot find the way to life within ourselves and our own cultural traditions, it has to come from elsewhere, and John shows us where to look:

... “knowing the truth” involves more than just cognitive awareness; it means to accept the revelation of truth and live by it. Again, a change in relationship to the revelation of God in Jesus is offered as the means by which human transformation will occur . . . The Gospel of John also takes a dynamic view of human development. It calls its readers to accept the revelation given through the creation, the giving of the law at Sinai, and the incarnation of the Logos, to respond in faith, and to live out the commandment of love.

In Southern Africa, both cultural worlds described above, and their combinations, have to be transformed by love and wisdom that is to be found in accepting this revelation, that connects ethical instruction with the creation of God. We can conclude this reflection on our context with Culpepper's conclusion: the call to become children of God is both John's imperative and John's hope for humanity, also for us in our part of the world.

SECTION 2

John, Creation and the Kosmos

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The Johannine *Logos*-Hymn: A Cross-Cultural Celebration of God's Creative-Redemptive Work

Paul N. Anderson

The first eighteen verses of the Gospel of John comprise one of the most important texts in western history. In the patristic era, these verses contributed more to the christological and theological debates in the first four centuries of the Christian movement than any other text in the Bible. Is Jesus as the Christ divine or human, or both? Is the Son equal or subordinate to the Father? What does it mean to become children of God?¹ And, in the modern era, the place of the Gospel of John within the quest for the historical Jesus has run into deeply problematic obstacles; if a text is theologically oriented, how can it at all represent objective and sober-sided history? After all, if John's presentation of Jesus is skewed by the evangelist's theological investments, how can it be considered "history" in the modern and scientific sense of the word?² Perhaps a third question involves the character of humanity in relation to God's saving-revealing work. If God's light is availed to all humanity, might some become children of God whether or not they have heard the outward story of the Jewish Messiah and his mission? On these and other subjects, the origin and character of the

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- 1 On patristic engagements of John's Christological tensions, see: T. E. Pollard, *Johannine Christology and the Early Church* (Cambridge: Cambridge University Press, 1970); Maurice Wiles, *The Spiritual Gospel: The Interpretation of the Fourth Gospel in the Early Church* (Cambridge: Cambridge University Press, 1960); William G. Rusch, *The Trinitarian Controversy* (Philadelphia: Fortress, 1980); Richard A. Norris, Jr., *The Christological Controversy* (Philadelphia: Fortress, 1980); Paul N. Anderson, *The Christology of the Fourth Gospel: Its Unity and Disunity in the Light of John 6*, WUNT 2:78 (Tübingen: Mohr/Siebeck, 1996; 3rd printing with a new introduction and epilogue, Eugene, OR: Cascade Books).
 - 2 On questions of John and the quest for Jesus, see: David F. Strauss, *The Christ of Faith and the Jesus of History: A Critique of Schleiermacher's Life of Christ* (1865, trans. L. E. Keck, Minneapolis: Fortress, 1977); Paul N. Anderson, "The Jesus of History, the Christ of Faith, and the Gospel of John," pages 63–81 in *The Gospels: History and Christology: the Search of Joseph Ratzinger—Benedict XVI, Vol. 2*, eds. Bernardo Estrada, Ermenegildo Manicardi, Armand Puig I Tarrech (Rome: Libreria Editrice Vaticana, 2013); Paul N. Anderson, *The Fourth Gospel and the Quest for Jesus: Modern Foundations Reconsidered*, LNTS 321 (London: T&T Clark, 2006).

Johannine Prologue holds the key, and Alan Culpepper points us in the right direction in his analysis of John.³

In this provocative essay, Culpepper reaches beyond the “safe” confines of text-bound exegetical studies to engage the larger set of issues involved—creation and evolution, cosmology and Johannine thought, anthropology and its character. His contribution here moves the discussion of the central meaning of John’s Gospel toward engaging modern scientific understandings of God, but what if we considered also John’s Prologue in the light of ancient-science understandings of the world, God, and human redemption? After all, if the Genesis accounts of God’s creative-redemptive work are seen as engaging (and challenging!) the ancient-science view of the Babylonian creation myth, wherein Marduk slays the female water-goddess, Tiamat, and out of her corpse creates dry land (hence, bolstering the myth of redemptive violence in the *Enuma Elish*), how did early Christians co-opt and challenge the ancient cosmological myths of their day with confessions of God’s breaking into human history with the saving-revealing Christ Events, making all things new for those who believe?⁴ Put otherwise, how can modern readers of the Fourth

3 R. Alan Culpepper, “‘Children of God’: Evolution, Cosmology, and Johannine Thought,” Prestige Lecture, Radboud University of Nijmegen, 2013. On the relation between John’s universal and particular soteriology, cf. Paul N. Anderson, *The Riddles of the Fourth Gospel: An Introduction to John* (Minneapolis: Fortress, 2011), 183–6.

4 A major lacuna in recent science-and-religion studies sponsored by the Templeton Foundation and other groups over the last couple of decades is the largely overlooked fact that biblical writers were rendering their historical and theological views in the light of ancient-science perspectives, as scientific worldviews are always foundational for myths—ancient and modern. In addition to the science-and-religion works referenced by Culpepper in the present volume, see also the following works: Ian Barbour, *Religion and Science: Historical and Contemporary Issues* (revised edition of *Religion in an Age of Science*; New York: HarperCollins, 1997); I. Barbour, *When Science Meets Religion: Enemies, Strangers, or Partners?* (New York: HarperCollins, 2000); John Polkinghorne, *Belief in God in an Age of Science* (New Haven and London: Yale University Press, 1998); Arthur O. Roberts, *Messengers of God: The Sensuous Side of Spirituality* (Newberg: Barclay Press, 1996); John Polkinghorne, *Quarks, Chaos & Christianity: Questions to Science and Religion* (New York: Crossroad, 1997); J. Polkinghorne, *Evidence of Purpose: Scientists Discover the Creator*, ed. John Marks Templeton (New York: Continuum, 1997); *How Large is God? Voices of Scientists and Theologians*, ed. John Marks Templeton (Philadelphia & London: Templeton Foundation Press, 1997); Nancey Murphy, *Theology in the Age of Scientific Reasoning* (New York: Cornell University Press, 1990); *Religion and Science: History, Method and Dialogue*, eds. W. Mark Richardson and Wesley Wildman (New York/London, 1997); *Quantum Cosmology and the Laws of Nature: Scientific Perspectives on Divine Action*, eds. Robert J. Russell, Nancey Murphy, and C. J. Isham (Vatican City State: Vatican Observatory Publications and The Center for Theology and the

Gospel appreciate its content within our contexts today, informed by a greater understanding of how original hearers and readers might have understood its content within their contexts? Perhaps Culpepper's view of a dynamic anthropology holds the key in considering what it means to become children of God—reached by grace and truth. This brings us into dialogue with several areas of interest regarding the Johannine *Logos* hymn as understood then and now.

To begin the inquiry, what is the relation of John 1:1–18 to the rest of the Fourth Gospel? It certainly introduces the narrative in engaging and compelling ways, but does it represent the evangelist's first stroke of the quill, or was it added later to an existing narrative? If the former, why is its poetic form distinct from the following narrative as a worship piece, in stanzas of similar length, with different vocabulary? Such words as *monogenēs* (only-begotten, Jn 1:14, 18), *plērōma* (fullness, 1:16), *charis* (grace, 1:14, 16, 17), and *logos* (word—with reference to Christ, 1:1, 14) are rare in the rest of the Gospel. And, if the latter, why does it cohere so closely with the overall thrust of the rest of John's narrative, as other themes are replicated in the narrative: *phōs* (light, 1:4, 5, 7, 8, 9), *zōē* (life, 1:4), *sarx* (flesh, 1:13, 14), and *doxa* (glory, 1:14)? However John's Prologue and narrative came together, they belong together, and each complements the other.

A second question involves the relation of the Johannine Gospel with the Johannine first Epistle. Given similarity between John 1:1–18 and 1 John 1:1–3, do we have some connection here between the beginnings of these two prologues? If so, the question is: how so? Was the Gospel written before the first Johannine Epistle, or after? Or, was the process of the Gospel's composition such that the Epistles might have been written between earlier and later editions of the Gospel, reflecting the embracing of John's story of Jesus of Nazareth within a Greco-Roman setting? Such is my view. Either way, though, how is John's *Logos*-hymn a cross-cultural celebration of God's creative-redemptive work, and how does getting a sense of its character and development affect one's understanding of its relation to the Gospel narrative?

Natural Sciences, Berkeley, California, 1993); Reiter Hooykaas, *Religion and the Rise of Modern Science* (Edinburgh: Scottish Academic Press, 1972); Eugene M. Klaaren, *Religious Origins of Modern Science* (Grand Rapids: Eerdmans, 1977); Carl York, *An Annotated Bibliography on the Relationship between the Physical Sciences and Spirituality*. Additionally, "scientific" approaches to biblical studies in the modern era fail to consider ancient-science perspectives posing the bases for ancient cosmologies, upon which myths and politico-religious views are based.

A third question involves the relation of John's *Logos*-hymn to other literature and views of the day. With relation to Genesis 1, Proverbs 8, Heraclitus of Ephesus, and Philo of Alexandria, how was God's "word" understood to be creating order out of chaos and existence from essence? With relation to other Christological hymns (Phil 2:5–11; Col 1:15–20; Heb 1:1–4), how was God's saving-revealing activity to be understood as active in the creative and redemptive work of Jesus as the Christ, especially within the context of burgeoning emperor-worship within the Roman empire? Further, if the role of John the Baptist is clearly set within the opening text of John's Gospel, how did that subject relate to the *Logos*-hymn? Was the former added to the *Logos*-hymn, was the *Logos*-hymn wrapped around references to the Baptist and his witness, or did these two features develop together from the beginning? Addressing these questions is the central focus of the present essay.

1 The Prologue as an Engaging Introduction to the Finalized Johannine Gospel

As the Johannine Gospel was circulated among the churches by the compiler—furthering the witness of the Beloved Disciple (Jn 21:24)—its introduction builds a powerful bridge with future audiences, engaging them with the content of the narrative experientially. From one community to many others, the collective "we" of the Johannine Prologue draws other audiences into a family of fellowship, wherein the love of God for the world is upheld to be received and celebrated. If the Johannine *Logos*-hymn grew out of worship, its continued use as a transformative gateway into John's story of Jesus prepares future audiences to receive personally and corporately the content of the message.⁵

That being the case, the content of the Johannine evangel is that in the fullness of time, God's saving-revealing action has come to the world through Jesus Christ, the *Logos* of God, who ministered in Galilee, Samaria, and Judea, but whose work also continues in other settings by means of the Holy Spirit,

5 Paul N. Anderson, "On Guessing Points and Naming Stars—The Epistemological Origins of John's Christological Tensions," pages 311–345 in *The Gospel of St. John and Christian Theology*, eds. Richard Bauckham and Carl Mosser (Grand Rapids: Eerdmans, 2007). See also the cognitive-critical application of the works of James Loder and James Fowler to human factors in the development of gospel traditions: P. N. Anderson, *Christology* 137–66; and Paul N. Anderson, "Cognitive Origins of John's Christological Unity and Disunity," *Horizons of Biblical Theology: An International Dialogue* 13 (1995): 1–25.

available to all (Jn 1:9; chs. 14–16). Thus, several important themes in the narrative are announced and featured in the Prologue, effectively engaging the hearer/reader in the message of the story. Put another way, as the Prologue introduces the Gospel, if one can discern the heart of the Prologue, it unlocks the door to understanding the heart of the Gospel.

Indeed, several approaches to getting at the heart of the Prologue have been proposed.⁶ Rudolf Bultmann argued that the heart of the Prologue, and therefore the rest of the Gospel, was John 1:14a—and *the Word became flesh and dwelt among us*. His former student, Ernst Käsemann, however, argued that the central thrust was 1:14c—and *we beheld his glory*. Upon either of these emphases the inferred thrust of the Gospel hangs, although neither considers a both-and possibility as the key to the issue.⁷ The most compelling approach to the center of the Johannine Prologue, and thus to the rest of the Gospel, is that proposed by R. Alan Culpepper, using a chiasmic analysis of its literary structure.⁸ Given that elements of the first part of this unit are echoed in reverse order in the second, the symmetry of the material brings one to the pivotal center, providing a window into the heart of its meaning. Therefore, the central thrust of the Johannine Prologue is found at verse 12b: *the Word's gift to those who accepted him*.

6 P. J. Cahill, "The Johannine *Logos* as Center," *CBQ* 38 (1976): 54–72; Craig A. Evans, *Word and Glory: On the Exegetical and Theological Background of John's Prologue*, JSNTSup 89 (Sheffield: Sheffield Academic Press, 1993); John A. T. Robinson, "The Relation of the Prologue to the Gospel of St. John," *NTS* 9 (1962–63): 120–129; John Painter, "Christology and the Fourth Gospel: A Study of the Prologue," *ABR* 31 (1983): 45–62; Jan G. van der Watt, "The Composition of the Prologue of John's Gospel: The Historical Jesus Introducing Divine Grace," *WTJ* 57 (1995): 311–32; Elizabeth Harris, *Prologue and Gospel: The Theology of the Fourth Evangelist*, JSNTSup 107 (Sheffield: Sheffield Academic Press, 1994), 925; C. K. Barrett, "The Prologue of St. John's Gospel," pages 27–48 in his *New Testament Essays* (London: SPCK, 1972); Herman Ridderbos, "The Structure and Scope of the Prologue to the Gospel of John," *NovT* 8 (1966): 180–201; Jeff Staley, "The Structure of John's Prologue: Its Implications for the Gospel's Narrative Structure," *CBQ* 48 (1986): 241–63.

7 Rudolf Bultmann, *The Gospel of John: A Commentary*, Johannine Monograph Series 1 (trans. G. R. Beasley-Murray et al. 1971; Eugene, OR: Wipf & Stock, 2014), 60–66; Ernst Käsemann, "The Structure and Purpose of the Johannine Prologue," pages 138–67 in his *New Testament Question of Today* (London, Philadelphia: SCM, Fortress, 1969). On John's dialectical theology, see C. K. Barrett, "The Dialectical Theology of St. John," pages 49–69 in his *New Testament Essays* (London: SPCK, 1972); the fact of John's Christology, however, is that it is highly dialectical—showing a both-and approach to most issues rather than an either-or approach: Anderson, *Christology*, 137–66.

8 R. Alan Culpepper, "The Pivot of John's Prologue," *NTS* 27 (1980): 1–31.

1.1 *The Chiastic Structure of John's Prologue in Culpepper's Analysis*

A	Jn 1:1–2	18 The word with God	A'
B	3	17 What came through the Word	B'
C	4–5	16 What was received from the Word	C'
D	6–8	15 John announces the Word	D'
E	9–10	14 The Word enters the world	E'
F	11	13 The Word and his own people	F'
G	12a	12c The Word is accepted	G'
H		12b The Word's gift to those who accepted him	H'

Given that the original ending of John's narrative declares its purpose to lead people to believe in Jesus as the Christ, the Son of God, and believing have life in his name (Jn 20:31), Culpepper's locating the pivot of the Prologue as "the Word's gift to those who accepted him" fits entirely well with the stated purpose of the Gospel. Further, a response to the light of Christ as the saving initiative of God is key to John's dynamic anthropology (to use Culpepper's term in the present volume), as the welcoming into the divine family is extended to all nations as the fulfillment of God's promise to Abraham to be a blessing to the world (Gen 12:1–3) is fulfilled in the mission of Jesus. That being the case, Jesus' signs, the witnesses, and the fulfilled word are crafted in the narrative in such a way as to pose an apologetic leading hearers and readers to believe in Jesus as the Messiah/Christ.⁹ So, if the four verses dealing with John the Baptist are set apart from the Prologue momentarily, the following three themes emerge, which typify key features developed further in the Johannine narrative.

1.2 *Key Themes in John's Prologue and Narrative*

John 1:1–5—The Creative Word of Life (the light shines in the darkness, and the darkness has neither comprehended nor overcome it)

John 1:9–13—The Redemptive Light of the World (the light was availed to all, but not all were receptive; those who were became children of God)

9 James F. McGrath, *John's Apologetic Christology: Legitimation and Development in Johannine Christology*, SNTSMS 111 (Cambridge: Cambridge University Press, 2001); Paul Anderson, *Navigating the Living Waters of the Gospel of John—On Wading with Children and Swimming with Elephants*, Pendle Hill Pamphlet 352 (Wallingford, PA: Pendle Hill Press, 2000).

John 1:14–18—The Flesh-Becoming Word, Full of Grace and Truth (we beheld his glory as the only-begotten Son of the Father)

Throughout the rest of the Johannine narrative, these three themes are displayed in dramatic ways. While Jesus as the Christ came into the world, some received him, but others did not; they preferred darkness over light (Jn 3:18–21), they claimed “we see” (while being blind, 9:41), and they loved the praise of humans rather than the glory of God (12:43). On the other hand, Jesus’ disciples come to follow him (1:37–51), the Samaritans and Galileans believe—including the royal official and his household (4:1–54), and so do many of the Jews (or Judeans?)—as do also the Greeks that had come to Jerusalem for the festival (8:31; 11:45; 12:20–21). In that sense, Jesus reaches out to sheep within his fold but also beyond it, gathering those who receive him into a new community of fellowship and love. On the cross, however, the full glory of the Son of Man is revealed, and as he is lifted up, all are drawn to him (12:32). And, in the presence of Jesus, something of the divine presence is encountered—an experience that continues on in post-resurrection consciousness (20:16–28). Encountering the glory of the flesh-becoming-Word is thus not only attested in the Prologue; it is documented in the narrative.

Therefore, in these and other ways, the Johannine Prologue sets the stage extremely well for the rest of the narrative that follows. It engages audiences experientially in the content of the narrative and invites them into the divine family of faith as upheld by the Johannine evangelist. However, the origin and composition of the Prologue was probably not an abstract literary construct; it likely emerged out of the community’s life of worship. Thus, it also reflects—perhaps even more centrally—a community’s response to the narrative, as reflected in the Prologue of the first Johannine Epistle.¹⁰

2 The Johannine Prologues as Communal Affirmations of the Johannine Story

On the question of whether the Johannine Epistles were written after or before the Gospel, the answer is: *both*.¹¹ Given a modest two-edition theory of John’s

10 The compelling view of Ed L. Miller, “The Logic of the Logos Hymn: A New View,” *NTS* 29 (1983): 552–61; “The Logos Was God,” *EQ* 53 (1981): 65–77; cf. also Anderson, “On Guessing Points.”

11 Something of a scholarly consensus has emerged among several Johannine scholars regarding the Johannine Epistles’ having been written within the process of the Gospel’s

composition,¹² it is likely that the *Logos*-hymn was added to an earlier edition of the Gospel, providing an engaging introduction to John's story of Jesus. That being the case, John's *Logos*-hymn reflects the community's response to hearing the evangelist's stories of Jesus. Therefore, the new commandment of Jesus to love one another in the Gospel (Jn 13:34–35) has become the old commandment, which people have heard from the beginning (1 Jn 2:7; 3:23; 2 Jn 1:5). And, the first-hand memory of Jesus in John's narrative has become the claim also of the Prologue to the first Johannine Epistle—declaring what we have heard-seen-touched. Therefore, 1 John 1:1–3 seems to echo the themes of the Gospel's story of Jesus in a three-stanza way, and the Prologues to the Johannine Gospel and first Epistle both appear to have emerged from the *Sitz im Leben* of the Johannine community.¹³

2.1 *The Three-Stanza Prologue of the First Johannine Epistle* (1 John 1:1–3)

We declare to you what was from the beginning,
 what we have heard,
 what we have seen with our eyes,
 what we have looked at and touched with our hands, concerning the
 word of life—

composition rather than before or after it; cf. Urban C. Von Wahlde, "Raymond Brown's View of the Crisis of 1 John: In the Light of Some Peculiar Features of the Johannine Gospel"; Paul N. Anderson, "The Community that Raymond Brown Left Behind: Reflections on the Johannine Dialectical Situation"; R. Alan Culpepper, "The Relationship between the Gospel of John and 1 John"; pages 19–45, 47–93, and 95–119, in *Communities in Dispute: Current Scholarship on the Johannine Epistles*, SBLCL 13, eds. R. Alan Culpepper and Paul N. Anderson (Atlanta: SBL Press, 2014).

- 12 Indeed, there could have been several editions, but at least there seems to have been an early form of the narrative (concluding at the end of Jn 20), to which later material was added by the compiler after the death of the Beloved Disciple (21:24). A modification of the modest composition theory of Barnabas Lindars, *The Gospel of John*, New Century Bible (London/Grand Rapids: Marshall, Morgan & Scott/Eerdmans, 1972), sees supplementary material added to the first edition of John's narrative as including John 1:1–18 (likely vv. 1–5, 9–14, 16–18), chapters 6, 15–17, and 21, and eyewitness and Beloved Disciple references (esp. 19:34–35, etc.); cf. Anderson, *Riddles* 141–44.
- 13 Paul N. Anderson, "The *Sitz im Leben* of the Johannine Bread of Life Discourse and its Evolving Context," pages 1–59 in *Critical Readings of John 6*, ed. Alan Culpepper, Biblical Interpretation Supplemental Series, 22 (Leiden: E. J. Brill, 1997; repr. Atlanta: SBL, 2006). Here and elsewhere, the NRSV is followed.

this life was revealed,
 and we have seen it and testify to it,
 and declare to you the eternal life
 that was with the Father and was revealed to us—

we declare to you what we have seen and heard
 so that you also may have fellowship with us;
 and truly our fellowship is with the Father
 and with his Son Jesus Christ.

Again, notice the ways that this corporate confession affirms the content of the Johannine narrative. The story of Jesus' ministry from the beginning—attested by hearing, seeing, and touching—is declared to others as the word of life. This is the life given by the Father (Jn 5:21, 26) and imparted by the Son (3:16, 36; 10:10; 14:6; 20:31). By receiving the Son, the believer has access to the Father, and the fellowship of the Son extends to the Father (14:9–13). That being the case, if the Prologue of the first Johannine Epistle reflects a response to John's story of Jesus, it is likely that the Prologue added to the Gospel also reflects a similar history of development. Therefore, as well as effectively introducing the Gospel in its finalized form, the *Logos*-hymn underlying John 1:1–18 likely also arose as a response to and an affirmation of John's story of Jesus. Just as 1 John 1:1–3 reflects a three-stanza structure, John 1:1–18 also betrays a three-stanza structure of the *Logos*-hymn when considered without vv. 6–8, 15.

2.2 *The Three-Stanza Prologue of the Johannine Gospel* (*John 1:1–5, 9–14, 16–18*)

Stanza 1—The Creative Word of Life (Jn 1:1–5)

In the beginning was the Word, and the Word was with God, and the
 Word was God.
 He was in the beginning with God.
 All things came into being through him,
 and without him not one thing came into being.
 What has come into being in him was life,
 and the life was the light of all people.
 The light shines in the darkness,
 and the darkness did not overcome it.

Stanza II—The Redemptive Light of the World (Jn 1:9–13)

The true light, which enlightens everyone,
 was coming into the world.
 He was in the world,
 and the world came into being through him; yet the world did not
 know him.
 He came to what was his own,
 and his own people did not accept him.
 But to all who received him, who believed in his name,
 he gave power to become children of God,
 who were born, not of blood or of the will of the flesh or of the will of
 man, but of God.

*Stanza III—The Flesh-Becoming-Word, Full of Grace and Truth (Jn 1:14,
 16–18)*

And the Word became flesh and lived among us, and we have seen his
 glory, the glory as of a father's only son, full of grace and truth.
 From his fullness we have all received, grace upon grace.
 The law indeed was given through Moses;
 grace and truth came through Jesus Christ.
 No one has ever seen God.
 It is God the only Son, who is close to the Father's heart, who has made
 him known.

While these two hymnic confessions are of different length and character, they assert a similar set of convictions regarding God's Son, Jesus Christ, who came as the word of life to the world in order that humanity might enjoy fellowship with the Father as part of the divine family. First-hand contact with Jesus and his ministry is asserted, and whether that assertion refers to eyewitness contact with Jesus, it certainly betrays connectedness with John's story of Jesus—the narrative bridge between first generation believers and all who would believe in later settings and contexts on the basis of that report, without having seen (Jn 20:29). In that sense, just as the Prologue to 1 John reflects a response to the Johannine witness—either in oral or written form, so does the Prologue to the Gospel, which seems to be a fuller and later response than 1 John 1:1–3. Thus, the Prologue to the Fourth Gospel not only introduces the narrative well; it also reflects a communal affirmation of its earlier narration and delivery.

3 The Gospel's Prologue as a Cross-Cultural Celebration of God's Creative-Redemptive Work

Given that the Johannine *Logos*-hymn developed within a cosmopolitan setting (the traditional view is Ephesus in Asia Minor—the gateway between Asia and Europe, and no other suggested setting is superior to that), its cross-cultural celebration of God's creative-redemptive work is impressive! First, we have a fitting assimilation of the main thrust of the gospel narrative's content. Jesus is sent from the Father, sharing God's love with the world; whoever responds to that message receives the gift of life, although even some of his own did not. In particular, what we see in the *Logos*-hymn is an adaptation of the Jewish agency motif, rooted in Deuteronomy 18:15–22, clearly laid out as the main thrust (the *Leitmotif*) of the Gospel.¹⁴ Note, for instance, these parallels.¹⁵

3.1 *The Predicted Prophet Like Moses (Deuteronomy 18:15–22)*

- God will raise up a prophet like Moses from amidst the brethren—Israel must listen to him (Deut 18:15)
- God will put God's own words into this prophet's mouth, and he will speak only the words that God has commanded him to speak (Deut 18:18)
- Humans are accountable to respond to God's agent and will be judged by God accordingly (Deut 18:19)
- Anyone who speaks on behalf of other gods or speaks presumptuously a word God has not commanded is a false prophet who should be put to death (Deut 18:20)
- The authentic prophet is identified by his word always coming true; if his word does not come true, that prophet has spoken presumptuously and may be disregarded (Deut 18:22)

14 Cf. Peder Borgen, "God's Agent in the Fourth Gospel," pages 83–95 in *The Interpretation of John*, 2nd edn., ed. John Ashton (Edinburgh: T & T Clark, 1997); Jan-A. Bühner, *Die Gesandte und sein Weg im vierten Evangelium: Die kultur- und religionsgeschichtlichen Grundlagen der johanneischen Sendungschristologie sowie ihre traditionsgeschichtliche Entwicklung* (Tübingen: Mohr-Siebeck, 1977). For 24 parallels between the sending motif in John and Deuteronomy 18:15–22, see Paul N. Anderson, "The Having-Sent-Me Father—Aspects of Irony, Agency, and Encounter in the Johannine Father-Son Relationship," *Semeia* 85, ed. Adele Reinhartz (1999): 33–57.

15 Adapted from Anderson, *Riddles* 131–33; for a fuller treatment, see Anderson "The Having-Sent-Me-Father."

3.2 *Jesus as Sent by the Father in the Gospel of John*

- Moses wrote of Jesus (Jn 1:45; 5:45); people experience him as a prophet or the Mosaic Prophet/Messiah (the Samaritan woman, 4:19; the crowd, 6:14; the Jews, 7:40; the blind man, 9:17); to receive the agent is to receive the one who sent him (13:20).
- The Son speaks not his own words but says and does only what the Father has commanded him to say and do (Jn 3:11; 5:19, 30; 6:38; 7:28; 12:49–50; 14:10, 13).
- Those who do not believe are already condemned (Jn 3:18) and will be held accountable ultimately for their response to the Son (5:37–38; 12:48).
- The Jewish leaders accuse Jesus of speaking presumptuously (Jn 10:33), and they seek to put Jesus to death (5:18; 7:1, 25; 8:37, 40, 59).
- Jesus' predictive word comes true, showing that he is indeed the authentic prophet whom Moses predicted (Jn 2:22; 4:41; 13:19, 38; 14:29; 18:9).

In addition to building on the Johannine sending motif based upon the Mosaic agency schema, the Johannine *Logos*-hymn also reflects cross-cultural incorporations of related themes as reflected in contemporary literature.¹⁶ Note, for instance the similarities with the teachings of Heraclitus—a Greek philosopher who taught in Ephesus six centuries earlier. In his view, given that the world is in a continuous state of flux, flowing from spark and fire, one can never step twice into the same fluid stream, and that which holds things together and reconciles opposites is the divine *Logos* (*Fragments* 20, 21, 41, 42, 45). The *Logos* is the source of reason and available to all, and yet humans follow their own judgments to their peril (*Fragments* 1, 2, 92). Note the similarities with John's view of the divine *Logos*, which is the light and life of humanity to which all have access (Jn 1:9); it is the creative source of all things (1:1–5), and through its work humanity is redeemed (1:10–13).

16 For instance, it is plausible that the Johannine Christ-hymn is based upon an earlier Jewish hymn in praise of God's Wisdom and Law within the Pauline mission; cf. John Painter, "Christology and the History of the Johannine Community in the Prologue of the Fourth Gospel," *NTS* 30 (1984): 460–74. Thus, we have in the Johannine Prologue a bold synthesis of the narratives of the Pre-existent Son and his ministry on earth; cf. Karl-Josef Kuschel, *Born Before Time? The Dispute over Christ's Origin* (1990, trans. John Bowden, New York: Crossroad, 1992), 363–395; Daniel Boyarin, "The Gospel of the *Memra*: Jewish Binitarianism and the Prologue to John Author(s)," *Harvard Theological Review* 94:3 (2001): 243–284.

The influence of Heraclitus is felt in the writings of Plato and the Stoics, as reason is hailed as the way forward in dealing with the perils of existence and life's contingencies. In the *Allegory of the Cave* (*Republic* VII) Plato describes the rejection of those who had seen the bondage of those in chains, who took shadows for reality and refused to accept the truth of those who had seen the light. In John's terms, they loved darkness rather than light (Jn 3:18–21); the light shone in the darkness, and the darkness has not comprehended it (1:5). In Stoic thought, the *Logos* of God came to be seen as taking a more active role in giving life and order to the world, and Philo of Alexandria took that idea further. In commenting on God's creative work in Genesis, Philo saw the *Logos* of God as the origin of human reason (*Creation* 146), the means by which God created the world (*Alleg. Interp.* 3:95), the cohesive means by which things are held together (*Heir* 188), God's conveyance of the divine image (*Dreams* 1:239), and the firstborn of creation, reconciling the created and uncreated worlds (*Heir* 205–208).¹⁷ Indeed, parallels with the Johannine *Logos*-hymn are extensive, and audiences in the Greco-Roman world of the first-century situation would have found many connections with John's hymnic rendering of Christ's saving-redeeming mission.

In addition to the Hellenistic background of the assimilative work behind the Johannine Prologues, however, Jewish scripture also played a major role.¹⁸ In Genesis 1, God spoke and through his Word, the world was created, and the land was divided from the raging waters. God's covenants and promises are established and reaffirmed by God's Word (Gen 12:1–3; 15:1–5), and humans will not live by bread alone, but by every Word proceeding from the mouth of God (Deut 8:3). God's prophets speak the Word of the Lord (2 Sam 12:7; Am 1:3),

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- 17 For contacts with Philo, see especially, Peder Borgen, "Logos Was the True Light," pages 95–110 in his *Logos Was the True Light and Other Essays on the Gospel of John* (Trondheim: Tapir Publishers, 1983), also in *NovT* 14 (1972): 115–30; and Borgen, "Observations on the Targumic Character of the Prologue of John," pages 13–22 in his *Logos. On the above and other parallels*, cf. Paul N. Anderson, "The Word," pages 893–98 in *The New Interpreter's Dictionary of the Bible*, Vol. 5, ed. Katherine Doob Sakenfeld (Nashville: Abingdon, 2009).
- 18 J. Rendell Harris, *The Origin of the Prologue to St. John's Gospel* (Cambridge: Cambridge University Press 1917); Raymond E. Brown, "Appendix II, The Word," pages 519–524 in his *The Gospel According to John (i–xii)*, AB 29 (New York: Doubleday, 1966); C. T. R. Hayward, "The Holy Name of the God of Moses and the Prologue of St. John's Gospel," *NTS* 25 (1978): 16–32; Mary Coloe, "The Structure of the Prologue and Genesis 1," *ABR* 45 (1997): 40–55; Masanobu Endo, *Creation and Christology: A Study on the Johannine Prologue in the Light of Early Jewish Creation Accounts*, WUNT 2:149 (Tübingen: Mohr-Siebeck, 2002); David A. Reed, "How Semitic Was John? Rethinking the Hellenistic Background to John 1:1," *ATR* 85:4 (2004): 709–726.

and the word of the authentic prophet indeed comes true (Deut 18:15–22). In Psalm 119, God's Word is to be treasured inwardly, and God's Word will stand forever; it will not return void (Isa 40:8; 55:11). In addition to God's creative work in Genesis, the Psalmist declares that the heavens, earth, and sea were created by God's Word, calling all humanity to stand in awe (Ps 33:6–9). Further, the wisdom traditions hail Lady-Wisdom as the agency of God's creative work (Prov 8:22–30), leading to a sapiential understanding of God's creative-redemptive mission. In these and other ways, the Jewish and Hellenistic context of the Johannine situation provided the ground in which the Prologues of the first Epistle and the Gospel would be composed, in effect translating John's Jewish agency schema into ways conducive to a cross-cultural setting.¹⁹

3.3 *The Mission of the Son in the Johannine Prologues— A Cross-Cultural Adaptation*

- From and in the beginning, God's Word was and is, through whom all things came into being.
- The Word was and is the Life and Light, available to all humanity, inviting a response of faith.
- Despite variable responses, those who receive him receive a full welcome as children of God.
- Having touched, and seen, and heard, we have beheld the glory of the flesh-becoming Word, full of grace and truth.
- The only-begotten Son makes the Father known, and this is the one we proclaim to you, that we might enjoy fellowship together.

Lest it be imagined, though, that worship in the Greco-Roman world was religious-only, public veneration also bore considerable socio-political clout, and that was founded on ancient cosmologies influenced by longstanding traditions and philosophies. To oversimplify things, the relation between rulers and their patron gods went both ways. Political and military triumph showed the victor's god was superior over others, and the honoring of a regent's image (*eikōn*) or god bolstered the prowess of the leader's reign. While this would not qualify as modern science, one can appreciate the correlative link between subjects honoring a regent (and his patron deity) and the regent's political success—self-fulfilling mythology. Plato, of course, challenged the authenticity

19 For a fuller treatment of Johannine familial inclusion of audiences, see especially the work of Jan G. van der Watt, *Family of the King: Dynamics of Metaphor in the Gospel according to John*, BIS 47 (Leiden: Brill, 2000).

of the gods in the name of a transcendent god, and Judaism held to one power in the heavens over all others. As an attempt to assert its domination over the Jews, Antiochus Epiphanes erected a statue of Zeus in the Jerusalem temple (167 BCE) and sacrificed pigs and other unclean animals on the altar.

A century later, after the Romans conquered the region, Rome sought to rule the Jews, but its approaches to domination were frustrated at every turn. When Herod the Great ruled Judaea (40–4 BCE) he erected a golden eagle outside the Jerusalem temple—an attempt to have it both ways—keeping the actual temple free of idolatrous images while still honoring Roman rule implicitly. When rabbis and forty of their students tore the image down, Herod had them burned to death (Josephus, *Wars* 1.33). Gaius Caligula (37–41 CE) attempted to erect a statue of himself in the Jerusalem temple, evoking an embassy from Philo of Alexandria and great opposition. After the Zealots provoked the Romans to their limit, they invaded the land (66–73 CE) and the temple in Jerusalem was destroyed in 70 CE. Following the destruction of Jerusalem, Vespasian levied the *Fiscus Judaicus* against all Jews in the Empire; they were to pay two drachmas to the temple of Jupiter Capitolinus in Rome.²⁰ This was the same amount of money expected as an annual tithe to the Jewish temple in Jerusalem; now, Jewish loyalty was required to be offered to Rome.

Within a political context in which the Roman Emperor claimed divine status as God's son—motivating loyal behavior and co-opting cultural festivities, confessing Jesus as God's Son and the source of the created order would have carried a pointed conventional thrust—emboldening resistance to empire and appeals of culture. This phenomenon is especially clear in the emerging worship material of early believers in the first-century Christian movement.

4 The Johannine *Logos*-Hymn among other Christological Hymns

In addition to affirming John's story of Jesus in the light of Greco-Roman cosmological views, the Johannine *Logos*-hymn displays a number of similarities

20 Richard J. Cassidy, *John's Gospel in New Perspective: Christology and the Realities of Roman Power*, Johannine Monograph Series 3 (1992; repr. Eugene: Wipf & Stock, 2015); Tom Thatcher, *Greater than Caesar: Christology and Empire in the Fourth Gospel* (Minneapolis: Fortress, 2009); Lance B. Richey, *Roman Imperial Ideology and the Gospel of John*, CBQMS 43 (Washington, DC: Catholic Biblical Association, 2007); Warren Carter, *John and Empire: Initial Explorations* (London: Bloomsbury T. & T. Clark, 2008); Stephen J. Friesen, *Twice Neokoros: Ephesus, Asia, and the Cult of the Imperial Flavian Family*, RGRW 116 (Leiden: Brill, 1993).

with other Christ-hymns emerging within the early Christian movement. As one of several Christological hymns that developed in contemporary Christian communities, these compositions reflect incorporations of Jewish and Hellenistic ideas into various communities' understandings of Jesus as the Christ. Therefore, if the Johannine situation included some overlap with the larger mission to the Gentiles, there doubtless would have been some engagement with three leading examples of Christ-hymns within the Pauline letters and Hebrews, developing slightly before the Johannine.²¹ Note, for instance, the similarities and differences between these three parallel examples of early Christian hymns regarding the creative-redemptive work of Jesus as the Christ.

4.1 *Philippians 2:5–11*

Let the same mind be in you that was in Christ Jesus,
 who, though he was in the form of God,
 did not regard equality with God as something to be exploited,
 but emptied himself, taking the form of a slave, being born in human
 likeness.

And being found in human form,
 he humbled himself
 and became obedient to the point of death—
 even death on a cross.

Therefore God also highly exalted him and gave him the name that is
 above every name,
 so that at the name of Jesus every knee should bend,
 in heaven and on earth and under the earth,
 and every tongue should confess that Jesus Christ is Lord,
 to the glory of God the Father.

Note here several parallels with the Johannine *Logos*-hymn. First, equality with God is asserted; Christ Jesus is of the same divine status as God, yet he does not insist upon honors—contra imperial claims to divine status and insisting upon divine honors, especially since the reign of Caesar Augustus (*Imperator Caesar Divi Filius Augustus*, 27 BCE–14 CE), but asserted again in the reigns of Gaius

21 Paul N. Anderson, "Excursus 11: The Christological Hymns of the New Testament," pages 314–320 in *From Crisis to Christ: A Contextual Introduction to the New Testament* (Nashville: Abingdon, 2014).

Caligula (37–41 CE) and later by Domitian (81–96 CE, although Philippians was written around 60 CE). Second, Christ Jesus poured himself out even unto death—death on a cross, emphasizing his full humanity. Third, it is in this act of willing servitude and humility that God has paradoxically lifted him up, that every knee should bow and tongue confess that Jesus Christ is Lord (not Caesar, or alternative deities) to the Father's glory. Fourth, the recitation of Christ's divine-humbled-exalted mission is held up as a moral example to emulate. As believers in Jesus embrace the servant-attitude of Jesus as the Christ, they can trust in God for honor rather than seeking its grasp, themselves.

Especially in Philippi, the hometown of Alexander the Great, and the site of the defeat of the assassins of Julius Caesar (brought about by Augustus and two other generals—the Second Triumvirate), this Christ-hymn would have levied a pointed thrust. Within such a context, the call to not think of oneself above others, but to take on the role of a servant—as did the Lord Jesus—would have asserted a powerfully contrastive vision of leadership. In contrast to Caligula, who insisted on being honored, Christ poured out his rights to honor as an example for others to follow. Paul builds on this unit of early Christian worship material in writing his letter of encouragement to the church in Philippi. Parallels to the Johannine *Logos*-hymn feature the divinity and humanity of Jesus, as well as his paradoxical exaltation on the cross and the ensuing resurrection. Jesus in John also exemplifies the other-serving love that believers are to show for one another and for the world. Consider now the form and content of the Christ-hymn underlying the Pauline letter to the Colossians.

4.2 *Colossians 1:15–20*

He is the image of the invisible God, the firstborn of all creation;
 for in him all things in heaven and on earth were created,
 things visible and invisible, whether thrones or dominions or rulers or
 powers—
 all things have been created through him and for him.
 He himself is before all things, and in him all things hold together.
 He is the head of the body, the church;
 he is the beginning, the firstborn from the dead,
 so that he might come to have first place in everything.
 For in him all the fullness of God was pleased to dwell,
 and through him God was pleased to reconcile to himself all things,
 whether on earth or in heaven,
 by making peace through the blood of his cross.

Note in this early Christian worship piece a similar set of convictions when compared with the Johannine *Logos*-hymn. First, the divine status of the Father's beloved Son, in whom believers find redemption and the forgiveness of sins (vv. 12–14) is asserted. He is the image of the invisible God, the firstborn of creation, and it is by him and for him that all things are created. Second, his pre-existence is affirmed, as well as his being the means by which all things are held together. Third, Christ is the head of his body, the church, and he is the firstborn from among the dead, commanding preeminence in all ways. Fourth, in Christ was the dwelling place of the fullness of God—reconciling all things and effecting peace through his sacrifice on the cross.

While critical scholars question Paul's authorship on the basis of differences between Colossians and Ephesians and the rest of Paul's letters, similarities with Philemon tend to be overlooked as well as the contextual fittingness of these letters within an Asia-Minor setting.²² Given the highly interreligious character of the Lycus Valley, Christ is lifted up over acclaimed deities and also above Roman imperial claims to domination and honor. Again, co-opting the Hellenistic theme of the divine *Logos* being the source of creation and order, the Colossian Christ-hymn asserts that Christ is both the source of creation and the means by which all things are held together. The resonances with the Johannine *Logos*-hymn here are clear, and if Johannine Christianity involved traveling ministries in the area, including visits to Hierapolis and Laodicea, contact with other Christian worship expressions would have been difficult to avoid. Central to the Colossian hymn, however, is that the source of the created order is now the head of the church—his body, and the peace and redemption of humanity are made possible by his sacrifice on the cross. A similar set of convictions are also expressed in the beginning verses of Hebrews.

4.3 *Hebrews 1:1–5*

Long ago God spoke to our ancestors in many and various ways by the prophets,
but in these last days he has spoken to us by a Son,
whom he appointed heir of all things,
through whom he also created the worlds.
He is the reflection of God's glory
and the exact imprint of God's very being,
and he sustains all things by his powerful word.

22 Embracing second criticality, and being unconvinced critically of their un-Pauline character, as most distinctives are explicable by contextual factors, I call these Paul's questioned letters "questioned" rather than "deutero"—Anderson, *From Crisis to Christ* x–xii, 179–182.

When he had made purification for sins,
 he sat down at the right hand of the Majesty on high,
 having become as much superior to angels
 as the name he has inherited is more excellent than theirs.

The Christ-hymn of Hebrews now brings a more Jewish approach to embracing the mission of Christ Jesus in cosmic perspective—in ways quite similar to John's *Logos*-hymn. First, it connects the redemptive work of the Son with God's having spoken in the past through the prophets (at many times and in many ways—πολυμερῶς καὶ πολυτρόπως) building continuity with the work of God's Word in the past and the work of God's Word in Christ Jesus. Second, the Son is both the heir of all things and the means by which the worlds are created; therefore, creation and redemption are again linked in this worship unit, affirming God's creative work in the beginning, but connecting the Son with that work. Third, the Son conveys the exact image of God, revealing the character of God's being, and he also sustains and holds things together by his empowering word. Thus, the divine Word is the source of order and harmony as well as existence. Fourth, in making purification for the sins of humanity, his place is seated at the right hand of the Majesty on high—given a name superior to angels and other intermediary beings. In that sense, the cosmic agency and honor of the Son is honored above all other speculations as to divine agencies and beings, within Judaism and beyond.

While the provenance of Hebrews is unknown, connections with Alexandria abound, especially if the preaching ministry of Apollos might have been connected to it, or if the allegorical work of Philo might be inferred in its background. Rome and Italy are also in the picture. In Philonic perspective, the *Logos* of God is the peacemaking mediator between the created and uncreated worlds, and it is through the divine *Logos* that humanity is drawn to God. God's Word conveys the divine image, and he is the firstborn of creation—the source of humanity's enlightenment as well as order. Connections here with the Johannine *Logos*-hymn are also extensive. God has spoken through his Word—now climactically—his Son. He is the creative origin and final destiny of all things, holding all things together by the power of his word. He is the exact representation of the Father's being and character, and through embracing the Son the Father is known. His sacrifice has effected the purification from sin, and thus he is exalted and honored above all other names.

The importance of viewing the Johannine Christ-hymn alongside the three leading parallels in the contemporary Christian movement is that some interplay between these worship compositions is likely. Thus it cannot be said that the influence was solely vertical—drawing from earlier Hellenistic or Jewish sources in the past; rather, a good deal of influence appears also to have been

lateral—drawing from worship expressions in the burgeoning Christian movement, even if such contact may have involved orality and secondary orality, not simply familiarity with written texts. Or, the traveling ministries of Paul and Apollos and others may have circulated such themes among the churches. After all, if Apollos is referenced as ministering in Ephesus, Corinth, and even Crete (Acts 18:24; 19:1; 1 Cor 1:12; Tit 3:13), some of these themes were likely circulated among the churches a good deal before the Johannine narrative was drawn together in written form. In that sense, the Johannine *Logos*-hymn had the benefit of drawing upon John's story of Jesus as well as other worship material among the churches, as Jewish monotheistic commitments came to be expressed in Christocentric terms—challenging political and religious pressures toward loyalty in the Greco-Roman world.²³ Of course, John's rendering may also have influenced other worship expressions, and, the similarities and differences between John's Christ-hymn and others suggest such interfluence.

5 The Johannine *Logos*-Hymn and the Witness of the Baptist to Jesus

This brings us, then, to the relation of the Johannine *Logos*-hymn and the witness of John the Baptist in the Fourth Gospel. Were the verses on John (vv. 6–8, 15) part and parcel of the worship piece? Or, were they added to a hymnic unit, or was a hymnic unit crafted around them? The answer to these questions is impossible to ascertain for sure, but it seems unlikely that these four verses on John would have been added to a set worship hymn before it was placed at the beginning of John's narrative—given that John's witness continues from John 1:19 through the middle third of the rest of the chapter. Nor does it seem likely that a worship hymn developing in Asia Minor after the destruction of Jerusalem would have carried a special emphasis on John the Baptist, although during Paul's ministry at Ephesus three decades earlier, followers of Apollos knew the baptism of John, but they did not know there was a Holy Spirit. After being baptized by Paul, who also laid his hands upon them, they received the Holy Spirit—all twelve of them (Acts 18:24–19:7). While John's testimony could have been part and parcel of the Johannine *Logos*-hymn from the beginning (this was Butlmann's view), it seems more likely that John 1:6–8

23 See especially Larry Hurtado's groundbreaking work on the development of Christ veneration as a feature of first- and second-century Jewish monotheism: *Lord Jesus Christ: Devotion to Jesus in Earliest Christianity* (Grand Rapids: Eerdmans, 2003).

and 15 comprised the beginning of the Johannine narrative, leading directly into verses 19 and following. Therefore, parallel to Mark's beginning paragraphs, the original opening of John's story of Jesus likely began with the featuring of John the Baptist's witness, as follows.

5.1 *The Christ-Centered Witness of John (Jn 1:6–8, 15, 19–34)*

There was a man sent from God, whose name was John. He came as a witness to testify to the light, so that all might believe through him. He himself was not the light, but he came to testify to the light. The true light, which enlightens everyone, was coming into the world.

John testified to him and cried out, "This was he of whom I said, 'He who comes after me ranks ahead of me because he was before me.'"

This is the testimony given by John when the Jews sent priests and Levites from Jerusalem to ask him, "Who are you?" He confessed and did not deny it, but confessed, "I am not the Messiah."

And they asked him, "What then? Are you Elijah?" He said, "I am not."

"Are you the prophet?" He answered, "No."

Then they said to him, "Who are you? Let us have an answer for those who sent us. What do you say about yourself?" He said, "I am the voice of one crying out in the wilderness, Make straight the way of the Lord," as the prophet Isaiah said.

Now they had been sent from the Pharisees. They asked him, "Why then are you baptizing if you are neither the Messiah, nor Elijah, nor the prophet?" John answered them, "I baptize with water. Among you stands one whom you do not know, the one who is coming after me; I am not worthy to untie the thong of his sandal." This took place in Bethany across the Jordan where John was baptizing.

The next day he saw Jesus coming toward him and declared, "Here is the Lamb of God who takes away the sin of the world! This is he of whom I said, 'After me comes a man who ranks ahead of me because he was before me.' I myself did not know him; but I came baptizing with water for this reason, that he might be revealed to Israel."

And John testified, "I saw the Spirit descending from heaven like a dove, and it remained on him. I myself did not know him, but the one who sent me to baptize with water said to me, He on whom you see the Spirit descend and remain is the one who baptizes with the Holy Spirit. And I myself have seen and have testified that this is the Son of God."

Again, while it is impossible to prove such a construction was the original beginning of John's story of Jesus, it fits several features entirely well. First, it comports with Mark's beginning, which also features the witness of John the Baptist. If indeed the Fourth Evangelist had at least heard Mark performed in a meeting for worship, and if John's first edition was produced a decade or so after Mark (say, 80–85 CE), then it would have been the second gospel, not the fourth.²⁴ Therefore, while the Johannine narrator does not depend on Mark for his content, there does appear to be some influence involved in the early Johannine rendering of Jesus' ministry as a complement to and augmentation of Mark, but to some degree also a corrective.²⁵ Thus, the Johannine narrative follows Mark's lead in featuring John the Baptist in his witness to Jesus (Mk 1:1–15), although it also corrects Mark's chronology here and there, including early events in Jesus' ministry *before* John was thrown into prison (Jn 3:24 versus Mk 1:14). That being the case, if the *Logos*-hymn is a later addition to a more mundane narrative, critical scholars' reasons for excluding the Fourth Gospel from the quest for the Jesus of history are considerably diminished. John's first edition differs from Mark with intentionality *because of* historical views, not simply theological interests.

Second, if the Johannine *Logos*-hymn was crafted around the Baptist passages, the location of verses 6–8 and 15 within the Johannine Prologue are explained, although it is puzzling that the evangelist or the editor did not simply place the three-stanza Christ-hymn at the beginning and arrange verse 18 to precede verse 6. Either way, the presence of John the Baptist within the Johannine Prologue is a riddle, and no easy explanation exists. What we do have, though, is the reflection of an early Christian worship hymn that is connected to the ministry of John the Baptist, and his role functions to point people away from himself toward Jesus. Therefore, while Baptist-adherents within the early, Palestinian phase of the Johannine tradition (30–70 CE) would have been pointed to Jesus by the witness of the Baptist, it is also true that during the second and third phases of the Johannine situation (70–85 and 85–100 CE) audiences in other regions, for whom John the Baptist was a memorable hero, would also have been pointed to Jesus. That being the case, John the Baptist

24 Argued compellingly by Ian D. Mackay, *John's Relationship with Mark*, WUNT 2:182 (Tübingen: Mohr Siebeck, 2004); see also Richard Bauckham, "John for Readers of Mark," pages 147–171 in *The Gospels for All Christians*, ed. Richard Bauckham (Grand Rapids: Eerdmans, 1997); Anderson, *Riddles* 141–144.

25 For an extensive analysis of the Markan-Johannine relationship, cf. Paul N. Anderson, "Mark, John, and Answerability: Interfluentiality and Dialectic between the Second and Fourth Gospels," *Liber Annuus* 63 (2013): 197–245.

not only plays a key role in the Johannine Prologue, but he also does so in the first part of the overall Johannine narrative, pointing away from himself to Jesus.

A third feature to notice is the way the Johannine *Logos*-hymn not only introduces the Johannine narrative in personally engaging and compelling ways, but how it also reflects a cross-cultural assimilation of John's Jewish agency schema rooted in Deuteronomy 18:15–22. Here we have a Jewish and Hellenistic rendering of the Father-Son relationship in John, whereby the Son is equal to the Father precisely because he says or does nothing except what the Father instructs him to say or do. In that sense, John's presentation of Jesus as the Christ is not an amalgam of variant Christologies; rather, its egalitarian and subordinate presentation of the Son's relation to the Father reflects flip-sides of the same coin—a Jewish agency schema that is adapted into a Hellenistic-friendly unit of worship material, assimilating features from Heraclitus, the Stoics, Philo, Hebrew Scripture, and other Christological hymns. As a result, the Johannine *Logos*-hymn celebrates the creative-redemptive work of God manifested through the person and work of Jesus as the Christ, the only-begotten Son of the Father, through whom believers receive grace and truth and are welcomed into the family of God. Thus, there is no division between Jews and Gentiles who receive the Father's gift of love to the world, and the joy of that fellowship is thereby complete.

6 Conclusion: Reading and Reciting the Johannine Prologue Contextually—Then and Now

A decade or so after the finalization of the Gospel of John, Pliny the Younger—the governor of neighboring Bithynia—wrote to Emperor Trajan asking if he should keep punishing Christians if they refused to deny Christ or to offer incense or worship to the Emperor or Roman idols (ca. 110 CE; *Letters* 10:96–97). In fact, it was a crime to be deemed guilty of simply bearing “the name,” and anonymous lists of Christians were being circulated among the Roman authorities as a means of getting Christians into trouble politically. Pliny's reason for writing is that his conscience is troubled by two young women who refused to deny Christ or to reverence Roman images; he questions whether he should torture them and put them to death. Conversely, Pliny reports stories of “innocent” subjects, who claimed that they were *not* Christians; they only met with those people before dawn on a designated day of the week, ate common food, and sang a hymn to Christ *as though he were a god*. Such persons were willing to reverence Roman images, and they also cursed Christ; in Pliny's view,

such persons *cannot* have been Christians. Perhaps the Johannine *Logos*-hymn was one of these worship hymns, which, along with other emerging Christian worship material, connected the outward story of Jesus' ministry with the cosmic events of God's creative-redemptive work in the larger salvation-history of the world.

And this brings us back, of course, to John's dynamic anthropology. Given that the human condition is characterized by no one having seen God at any time (Jn 1:18; 6:46), the only hope for humanity is the saving-revealing initiative of God. The conventional world operates by deservedness and merit, and the undeserved love of God cannot be imagined; it must be revealed. As the divine initiative clashes with creaturely schemes and platforms, no one *can* come to Christ except it be granted by the Father (6:44, 65), so even a response to revelation of grace is itself a factor of grace. Therefore, the greatest obstacle to receiving and responding to the divine initiative is humanity's confidence in the human initiative, loving human glory rather than that which comes from God (1:12–13; 3:19–21; 12:43). Herein lies the key to the riddle of John's universal and particular soteriology—that Jesus Christ is the only way to the Father (14:6) while the light of Christ enlightens all (1:9). The only hope for humanity is not creaturely religious or political schemes of influence or manipulation; the truth alone is liberating, and Christ's leadership is one of truth (8:32; 18:37). Therefore, in responding to God's self-giving love, one finds oneself embraced and included in the divine family as a child of God—a new birth of transformed anthropology. Such is the heart of the Johannine story, and such is the dynamic reality which the Johannine Prologue is designed to effect.

“Children of God” and Aristotelian Epigenesis in the Gospel of John

Adele Reinhartz

1 Introduction

In his masterful essay, “‘Children of God’: Evolution, Cosmology, and Johannine Thought,” Alan Culpepper engages the Gospel of John in a dialogue with 21st century scientific theories on the origins and destiny of the cosmos and the human species. Rather than pose an opposition between science and scripture, of the sort that is frequently expressed in the “creationism vs. evolution” debate, Culpepper’s insightful analysis shows that despite their differences, science and scripture—specifically, John’s Prologue—offer complementary rather than contradictory perspectives. Looking beyond the differences, it becomes apparent that both science and the Fourth Gospel express awe and wonder at the fact of human existence, and emphasize participation in creativity as both the hallmark and the destiny of humankind.

The complementarity between science and John’s Prologue that can be discerned in our own day was present also in the ancient world within which and for which the Fourth Gospel was written.

In “‘And the Word was Begotten’: Divine Epigenesis in the Gospel of John,”¹ I argued that alongside the philosophical and theological elements in the Johannine understanding of the father-son relationship we should also see a rather concrete, biological element based on the prevailing understanding of the process of procreation. Specifically, I argued that the Johannine understanding of the father-son relationship between God and Jesus is shaped by the Aristotelian theory of epigenesis, according to which the male sperm is viewed as the vehicle for the logos and pneuma of the father which provide the form and essence of the offspring.

The article also looked briefly at the next generation beyond Jesus, the generation of the first disciples, and beyond them to subsequent believers including members of the hypothetical Johannine community. Here too I saw, at least initially, many similarities to Aristotelian thought, particularly with regard to the goal or purpose of generation. For Aristotle, generation has a divinely-given

1 Adele Reinhartz, “‘and the Word Was Begotten’: Divine Epigenesis in the Gospel of John,” *Semeia* 85 (1999): 83–104.

purpose, namely, the perpetuation of the species. Likewise, the Gospel of John also foresees the perpetuation of a new species of which Jesus is the progenitor (17:6) as being fundamental to the purpose for which Jesus came into the world. Viewed through the lens of Aristotelian embryology, I argued that the Gospel of John describes the creation of a new species—the “children of God”—“who were born [or begotten], not of blood or of the will of the flesh or of the will of man, but of God” (1:12–13). The ultimate cause and origin of the species is God, the divine father, who sent his *logos* and *pneuma* into the world through the generation of his only son in human form.

My initial conclusions were that the means by which this new species was generated could also be seen in Aristotelian terms. My conclusion was based in large measure upon Jesus’ words to Nicodemus in John 3:3–5:

Very truly, I tell you, no one can see the kingdom of God without being born from above.” Nicodemus said to him, “How can anyone be born after having grown old? Can one enter a second time into the mother’s womb and be born?” Jesus answered, “Very truly, I tell you, no one can enter the kingdom of God without being born of water and Spirit.

This passage describes the generation of a new species. Generation occurs when a person is reborn “from above” or “again” through water and the spirit. This term appears in Aristotle’s *On the Generation of Animals* as a reference to the upper cosmos which is the source of the generative abilities of animal species (731b25). This parallel supports a translation of this term as “from above” though in context it does not exclude the meaning of “again” which is implied by Nicodemus’s literalistic response to Jesus’ declaration. The reference to water is often understood to refer to the amniotic fluids and/or baptismal waters, thus also connected with spiritual rebirth.² Finally, the idea of being born through the spirit echoes 1:12–13, in which the children of God are begotten by God, and is therefore to be understood as birth through the *divine* spirit. Like the term “from above,” the notion of being born of water and spirit also has a striking parallel in the Aristotelian vocabulary of epigenesis. According to GA 735b10, semen, that is, the fluid of generation that provides the sentient soul of the offspring, is said to be made of water and spirit.³ Thus John 3:5 can

2 Margaret Pamment, “John 3:5: Unless One Is Born of Water and Spirit, He Cannot Enter the Kingdom of God,” *Novum Testamentum* 25 (1983): 189–90; Ben Witherington, “The Waters of Birth: John 3:5 and 1 John 5:6–8,” *New Testament Studies* 35 (1989): 155–60.

3 Anthony Preuss, “Science and Philosophy in Aristotle’s *Generation of Animals*,” *Journal of the History of Biology* 3 (1970): 26

be read as a declaration that a child of God is one who is begotten of the divine seed that originates in the upper cosmos.

To this point, then, Johannine generation resembles, at least in terms of its vocabulary, the Aristotelian notion of epigenesis. Upon closer examination, however, it now seems to me that John parts company with Aristotle with regard to the physicality of the process by which the subsequent generation is created. Whereas the genesis of the Son can be seen as a physiological process in that Jesus, as the Word incarnate, quite literally incorporates the divine spirit, subsequent generations are not engendered in the same way that he was. This contrasts with Aristotelian views, in which the process of generation is a cyclical process with each generation repeating the physiological processes that produced its ancestors. In the present paper, I will explore these differences and examine their implications for the Johannine understanding of ecclesiology on the one hand, and the practice of the Johannine community, on the other hand.

2 The Cycle of Genesis and Decay

For Aristotle, perpetuation of the species occurs through the cyclical process of genesis and decay.⁴ While the father plays the most important role in this process, the mother's role is also essential. Aristotle's theory of epigenesis describes the act of generation as being set in motion by the male sperm, which is the *logos*, that is, the motive and final cause of the reproductive process. The *logos* is the vehicle for the male *pneuma* that determines the form and characteristics of the offspring. The role of the female "sperm," on the other hand, is to provide the medium of growth for the offspring. Both male and female are considered to be principles of generation, which, though small in themselves, are of great importance and influence as the sources upon which other things depend and as the agents of growth and development (GA 716b3).⁵

In contrast to Aristotle, John has no role for a maternal figure past Jesus' own generation, and even that is very muted, in contrast to the prominence given to Jesus' mother, Mary, in the Gospels of Matthew and Luke. In 1:14, it would seem that the process that created Jesus involved God's infusion of the Holy Spirit into the vessel provided by Jesus' mother. But the mother's role seems to go no further than this initial creation. For subsequent generations, as I will try to

4 Ibid., 53; cf. GA 731b35.

5 Cf. Aristotle, *On the Generation of Animals*, trans. A. L. Peck, *Loeb Classical Library* (Cambridge, MA: Harvard University Press, 1943), xlv.

show, the process by which a new species, called children of God, is generated is not cyclical but linear, a line that moves relentlessly forward by adding new members through adhesion or perhaps conversion, and not through the cyclical process of genesis and decay.

3 No Genesis: Spiritual Rebirth in John

We begin with the Johannine silence on the matter of genesis. As John 3:5 suggests, rebirth into the new species does not happen by a return to the womb but by being born of water and the Spirit. This passage would seem to allude to the practice of baptism. If so, believers come to Jesus through the infusion of holy spirit; Jesus continues the work of generation not through his seed but by the post-resurrection infusion of his spirit into those who struggle for true knowledge of the father through the son. That the disciples achieve this rebirth, that is, become part of this new species, is implied in 20:22, when the risen Jesus breathes the Holy Spirit upon the disciples. While in Aristotelian terms, the *pneuma* is carried by the male seed that gives form to the offspring, in John it is literally Jesus' breath that carries his, and his father's, spirit and hence makes the disciples his children, created in his, and the divine, images.

The giving over of Jesus' *pneuma* to the disciples therefore might imply that Jesus is thereby "begetting" them, moulding them in his shape and form. Just as the divine father begot and sent Jesus into the world through the process of divine *pneuma* and generation, so does Jesus beget and send his disciples into the world. As Jesus says to God, "As you have sent me into the world, so I have sent them into the world" (17:18; cf. 20:21).

With this spiritual rebirth, the disciples inherit the abilities that Jesus had, namely, the ability to forgive or retain the sins of others (20:23; cf. 5:14), just as Jesus acquired the abilities of the father to judge and to give life. They will do the works that Jesus does and even greater works than these (14:12). The relationship that the Father and Son enjoyed will now be entered into by the disciples, "that they may all be one. As you, Father, are in me and I am in you, may they also be in us, so that the world may believe that you have sent me" (17:21). These children of God, like the only-begotten son, will receive the benefits of dwelling with God, as Jesus goes to prepare a place for them in his Father's house (14:2–3) and prays that "those also, whom you have given me, may be with me where I am" (17:24).

Later generations, who come to faith after the earthly sojourn of the Word, are "generated" through the Paraclete, who is the Holy Spirit (cf. Genesis 2:7).

In John 6:63, Jesus declares: "It is the spirit that gives life; the flesh is useless. The words that I have spoken to you are spirit and life."

4 The Role of the Mother

In contrast to Aristotelian epigenesis, there appears to be no role for mothers in John's understanding of how the new species is generated. It is significant that no women in the Gospel are presented as mothers except for Jesus' mother; in her case, the relational aspect is present but not the biological. Yet women themselves are instrumental in bringing new potential believers to Jesus. Indeed, the Gospels have several scenes that could have been sexually charged, that is, situations that could have led to children "born of the flesh" rather than the "will of God" (cf. 1:12–13), but in each case sexuality is transcended and transformed into spirituality. This is particularly evident in the Johannine accounts of Jesus' encounter with the Samaritan woman in John 4, and with Mary Magdalene in John 20.

John 4 is often understood as a type scene of betrothal at the well, along the lines of Jacob meeting Rachel (Genesis 29:1–20) and Moses meeting Zipporah (Exodus 2:16–21). Jesus himself hints at this type scene when he displays the knowledge that the woman has had five husbands and is now with someone who is not her husband. He gives her the "living water,"⁶ and she brings forth believers by preaching/testifying to her community. When the Samaritans invited Jesus to stay with them, the woman's role is over and she disappears from the narrative:

So when the Samaritans came to him, they asked him to stay with them; and he stayed there for two days. And many more believed because of his word. They said to the woman, "It is no longer because of what you said that we believe, for we have heard for ourselves, and we know that this is truly the Saviour of the world (John 4:40–42).

In John 20, Mary Magdalene is portrayed as the bride of the Song of Songs who had lost her lover and then to her joy found him again. But Jesus stops her from touching him and instead sends her with a message to the disciples. Like the Samaritan woman, she testifies to others and disappears from the narrative at

6 Lyle Eslinger, "The Wooing of the Woman at the Well: Jesus, the Reader and Reader-Response Criticism," *Journal of Literature and Theology* 1 (1987): 167–83.

the point where they encounter Jesus directly. The narrative thus rejects physical procreation as implied in the lovers' touch in favour of procreation through the Spirit and the word.⁷

Both the Samaritan woman and Mary Magdalene can be seen as spiritual mothers in that they have a productive role in bringing new "children" for this new species. Andrew can be seen in a similar light, as he brings Peter to Jesus at the very beginning of the ministry. By contrast, the other disciples are not able to function in this role until after Jesus' death and resurrection. Perhaps this is the power they receive when Jesus breathes the Holy Spirit upon them. When the Greeks want to come to Jesus (John 12), they approach the disciples, but Jesus responds obliquely: "The hour has come for the Son of Man to be glorified. Very truly, I tell you, unless a grain of wheat falls into the earth and dies, it remains just a single grain; but if it dies, it bears much fruit" (12:23–24).

Finally, for those who live after the time of Jesus, that is, those who have not seen but yet believe (John 20:29), it is the Gospel itself that functions as the source of the Holy Spirit through whom they can become children of God: "Now Jesus did many other signs in the presence of his disciples, which are not written in this book. But these are written so that you may come to believe that Jesus is the Messiah, the Son of God, and that through believing you may have life in his name" (John 20:30–31).

The Gospel therefore presents different means of acquiring the Holy Spirit, and thereby achieving birth as a child of the spirit. Some, such as the disciples, come to Jesus directly. Some come through the words of others. Those who live in later periods, those who cannot see directly, can absorb the Holy Spirit by reading the Gospel of John itself (see John 20:30–31).

5 No Decay

Just as there is no genesis, so is there no decay for this new species. The infusion of the Holy Spirit, through which the new species is born, is a one-time event in contrast to other processes which are temporary events and have to be done over and over again. This is emphasized particularly in John 4 and 6. In 4:13–15, Jesus tells the Samaritan woman: "Everyone who drinks of this water will be thirsty again, but those who drink of the water that I will give them

7 Adele Reinhartz, "To Love the Lord: An Intertextual Reading of John 20," in *The Labour of Reading: Essays in Honour of Robert C. Culley*, ed. Fiona Black, et al., *Semeia Studies* (Atlanta: Scholars Press, 1999), 56–69.

will never be thirsty. The water that I will give will become in them a spring of water gushing up to eternal life." In 6:35, Jesus declares to the crowd, "I am the bread of life. Whoever comes to me will never be hungry, and whoever believes in me will never be thirsty." He reiterates and expands on this idea in 6:48–58:

I am the bread of life. Your ancestors ate the manna in the wilderness, and they died. This is the bread that comes down from heaven, so that one may eat of it and not die. I am the living bread that came down from heaven. Whoever eats of this bread will live forever; and the bread that I will give for the life of the world is my flesh.

He promises that:

Those who eat my flesh and drink my blood have eternal life, and I will raise them up on the last day; for my flesh is true food and my blood is true drink. Those who eat my flesh and drink my blood abide in me, and I in them. Just as the living Father sent me, and I live because of the Father, so whoever eats me will live because of me. This is the bread that came down from heaven, not like that which your ancestors ate, and they died. But the one who eats this bread will live forever.

6 No Death

Though this species resembles the human species in most ways, it differs in one major respect: it does not die but experiences eternal life. In 5:24–26, Jesus declares:

Very truly, I tell you, anyone who hears my word and believes him who sent me has eternal life, and does not come under judgment, but has passed from death to life. Very truly, I tell you, the hour is coming, and is now here, when the dead will hear the voice of the Son of God, and those who hear will live. For just as the Father has life in himself, so he has granted the Son also to have life in himself.

Lazarus, who is raised from the dead, is an exemplar of the new species.⁸ Thus the decay and death that is part of the cyclical life process is no longer

8 See Adele Reinhartz, *The Word in the World: The Cosmological Tale in the Fourth Gospel* (Atlanta, Ga.: Scholars Press, 1992).

operative for this new species. Rather, hearing the word, imbibing the spirit, eating the flesh: all of these are necessary for spiritual rebirth that promises eternal life.

This promise, however, becomes problematic with regard to the Beloved Disciple, about whom some people apparently believed he, and perhaps also other disciples, would not experience physical death. The problem is alluded to in John 21:20–23:

Peter turned and saw the disciple whom Jesus loved following them . . . When Peter saw him, he said to Jesus, "Lord, what about him?" Jesus said to him, "If it is my will that he remain until I come, what is that to you? Follow me!" So the rumor spread in the community that this disciple would not die. Yet Jesus did not say to him that he would not die, but, "If it is my will that he remain until I come, what is that to you?"

This brief sketch emphasizes that the new species is a spiritual community. As John 20:30–31 indicates, readers are to believe that Jesus is the Messiah and Son of God; Jesus' words should "penetrate" into one's soul and heart, so that one can be reborn of water and the spirit and hence become a child of God. From the point of view of the community, the Paraclete is the Holy Spirit and the agent through which rebirth occurs. But the Gospel, as a book, also fulfills this role, as the set of writings that convey Jesus' words and the Holy Spirit to the reader.

7 **The Growth of the Johannine Community?**

It may be dangerous to move from the conceptual level to that of the social history of an actual community. But if one were to do so, the above construction might imply that members of the community come through conversion, and that there is no emphasis within the community on procreation as a way of gathering members of the community. If so, then one would also surmise that the community does not look ahead to progeny but to gathering the dispersed children of God who are living at the time. This is suggested in the narrator's interpretation of Caiaphas's prophecy in John 11:51–52: "that Jesus was about to die for the nation, and not for the nation only, but to gather into one the dispersed children of God." The possibility of joining this new species was open not only to the living but also to the dead, as suggested by John 5:24–26 and John 11.

The intriguing question that arises, then, concerns celibacy: Was the Johannine community ascetic in the sense of abstaining from sexual activity and marriage? Certainly the prominent role of women as recipients and conveyors of divine revelation and Jesus' word would argue against the notion of the Johannine community as male only. But we may be looking at a community where growth is seen to occur not through procreation but through baptism and conversion.

There is no direct evidence for Johannine community, let alone for its social practices. But there are parallels that suggest that such a construction was not unheard of in the first century. First Corinthians 7, in which Paul apparently responds to a series of questions from his Corinthian church about matters of sexuality, implies that among the Corinthians there was some anxiety about the implications of Paul's teaching about Jesus and the imminence of the eschaton for human sexuality. Gnostic interpretation of John would have been compatible with this view.⁹ Rensberger comments that while the Gospel of John does not appeal specifically to ascetic categories, the contrast between spiritual birth and physical birth downplays the latter in favour of the former. "This could be taken to imply that those who seek to bring others to birth from the Spirit have a more important role than those who physically engender and bear children."¹⁰

8 Conclusion

In the final analysis, we have no evidence one way or another for the question of celibacy or asceticism in the Johannine community. What remains intriguing, however, is both the use and the transformation of Aristotelian categories in the ways in which the Gospel of John talks about Jesus in relationship to the father on the one hand and his followers on the other hand. Surely this argues for the profound influence of Aristotle on early Christian thought, and on the evangelist as someone who had at least a passing acquaintance with the

9 Cf. Elaine H. Pagels, *The Johannine Gospel in Gnostic Exegesis: Heracleon's Commentary on John* (Nashville: Abingdon Press, 1973). Pagels' study shows that the Gnostics saw Jesus as being created in precisely this way, and also the elect as the "seed" sown from above. Pagels (*ibid.*, 91) suggests that the Gnostics view Jesus as the heavenly bridegroom for the Samaritan woman.

10 David Rensberger, "Asceticism and the Gospel of John," in *Asceticism and the New Testament*, ed. Leif E. Vaage and Vincent L. Wimbush (New York: Routledge, 1999), 142.

categories and vocabulary of Greek thinking about the process of generation. Finally, from the point of view of this analysis, as from other points of view, the role of women in the community, as leaders, as those who bring forth Jesus' spiritual children, is prominent, perhaps all the more so because of the apparent absence of an emphasis on women in their potential roles as biological mothers.

Cosmos, Reality, and God in the Letters of John

Jan van der Watt

1 Introduction

In his Radboud prestige lecture Alan Culpepper ventured into the complex interdisciplinary debate on the relation between theology and science, especially in relation to creation and the *kosmos*. He points out that in certain respects the Johannine material offers a perspective of synergy between the complicated processes of initial and continuing creation, which might serve as a basis for discussion with other disciplines. This moves beyond questions like, did God create in seven days or was there a Big Bang? In this contribution, another aspect receives attention, namely, the worldview of John regarding the cosmos. In the background the question will be kept in mind whether different disciplines use different worldviews and whether it is imperative that only one worldview should be used at any particular time. John's First Letter will be analysed as being part of the wider Johannine tradition.¹

What is John's cosmological vision according to his Letters?² To answer this question, the term "cosmology"³ should first be defined. The concept of cosmology here refers to the origin, nature, evolvment, and final fate of the universe.⁴ It includes the total dynamic mental picture (which includes any references to origin, functioning, order, nature, structural interaction, final destination) of the universe (not only the created world), including both the physical and transcendental realities. The aim is not to present a comprehensive "cosmology" but to describe the "cosmological views" as they are found specifically in the letters of John. Although these letters were not written with the purpose of developing, presenting, or discussing a particular cosmology, they were written with a specific cosmic vision of how things in this reality

1 This does not deny the differences between the Gospel and Letters, but does assume a strong theological affinity between these documents.

2 Cf. my "Cosmos, Reality and God in the Letters of John," *In Luce Verbi*, Vol. 47, No. 2 (2013), pp. 1–9 for similar material.

3 This word is broader than and should be distinguished from the concept "cosmogony" that refers to theories about the origin of the universe, although in many cases in the New Testament material these two concepts overlap.

4 R. A. Orden, Jr., "Cosmogony, Cosmology," *The Anchor Yale Bible Dictionary*, vol. 1 (New York: Doubleday, 1992), 1162, opines, "A cosmology (*kosmos* + *logia* = 'report') is a blueprint or map, in the widest sense, of the universe as a comprehensible and meaningful place."

are organized, function, etc. This vision, being at least partly embedded in the texts of the Letters, will be analysed.

In analysing the cosmology of the Letters, a logical place to start is with the term κόσμος itself, which is used twenty-three times in the Letters. Semantically the content of this concept cannot be restricted to one word—the concept is expressed in other ways too, that should also be considered. The semantics of the word κόσμος itself will therefore first be investigated, then concepts related to the cosmological vision in the Letters will receive attention, followed by an analysis of the presence of apocalyptic elements in the Johannine view of reality.

2 The Word κόσμος—Its Semantic Potential

The word κόσμος⁵ (*kosmos*) covers a wide range of possible uses in 1 and 2 John;⁶ it is not used with a single meaning.⁷ This corresponds with the lexicographical potential of the word.⁸ An analytical survey of the use of this term in the Letters allows for the division into four major categories,⁹ namely, a) the

5 There are other words that also belong to the same semantic domain as κόσμος, like γῆ (*gē*), κτίσις (*ktisis*), but they are not treated, since they are not used in the Letters.

6 It should be noted that the word *kosmos* is only used in 2 John 7 outside of 1 John. It is not used in 3 John at all. The discussion will therefore by default mainly concentrate on 1 John—mention will be made of 2 John 7 when appropriate.

7 It is used 22 times in 1 John (2:2, 15[3x], 16[2x], 17; 3:1, 13, 17; 4:1, 3, 4, 5[3x], 9, 14, 17; 5:4[2x], 19) and once in 2 John 7.

8 Cf. W. Arndt, F. W. Danker, and W. Bauer, (BDAG) *A Greek-English lexicon of the New Testament and other early Christian literature* (Chicago: University of Chicago Press, 2000), *ad loc.*: *kosmos* was used to refer to “that which serves to beautify through decoration, *adornment, adorning*” or “condition of orderliness, *orderly arrangement, order*” in Homeric times. However, the reference to “the sum total of everything here and now, *the world, the (orderly) universe*” is attested much wider, even in the New Testament. In a more specific sense it is also used to refer to “the sum total of all beings above the level of the animals, *the world*” or more specific, “humanity in general.” In a broader sense it is used to refer to “planet earth as a place of inhabitation, *the world*,” indicating the habitation of humans, standing in contrast to heaven. *Ibid.* (*ad loc.*) further distinguish “the system of human existence in its many aspects, *the world*,” including joys, possessions, sufferings, etc. as a possible reference. In a very broad sense it may refer to the “collective aspect of an entity, *totality, sum total*.”

9 The underlying theory used in analysing the meaning of the concept of cosmology is based on two pillars. The lexicographical potential of a word is reflected in major dictionaries like *ibid.* (*ad loc.*) and J. P. Louw and E. A. Nida, *Greek-English Lexicon of the New Testament: Based on Semantic Domains* (New York: United Bible Societies, 1996), *ad loc.* This potential of the

physical/material reality people live in; b) all humans; c) humans not believing in God; d) the ungodly reality that stands in opposition to God (see also Brown 1986:223–224).¹⁰

a) *The physical/material world people live in.* In an explanation of what love involves the author of 1 John (from here John) gives an example of what it means for a believer to lay down his life, by saying in 1 John 3:17: “But if anyone has the world’s goods and sees his brother in need, yet closes his heart against him, how does God’s love abide in him?” Here a situation is addressed where a person with material means¹¹ is asked to share this with a brother or sister in need.¹² Semantically this refers to material things in this world (called *kosmos*).¹³

b) *All humans.* The word *kosmos* is also used to refer to humans as such. For instance, it is said that many false prophets (1 John 4:1) or deceivers (2 John 7) have gone out “into the world,” in other words, they have gone to humans in

word is then considered with its associative use in the text (co-text) which associatively activates a particular usage. However, the presence of a concept in a document is not restricted to the use of a single term or terms, but also to the presence of comparable ideas or concepts. The analysis of the cosmology in the Johannine Letters will therefore not be restricted to the use of the word *kosmos*.

- 10 It must be noted that 1 John is the major source of information, although 2 and 3 John also make some contribution. If there is reference to 1 John only the chapter and verse(s) will be referred to (i.e. 3:14) while 2 or 3 John will be added if the reference is to them (i.e. 2 John). When the reference is to another book the name of the book will be placed before the chapter and verse.
- 11 When discussing this issue, H.-J. Klauck, *Der Erste Johannesbrief* (Neukirchner: Neukirchner Verlag, 1991), 212, remarks: “Das Leben in der Welt erfordert Mittel zum Leben. . .” Other phrases found are “irdischen Gutes” (R. Schnackenburg, *Die Johannesbriefe* [Freiburg et al.: Herder, 1984], 199; “this world’s livelihood” (R. E. Brown, *The Epistles of John* [New York: Doubleday, 1986], 449); “vergänglichen Welt” (G. Strecker, *Die Johannesbriefe* [Göttingen: Vandenhoeck & Ruprecht, 1989], 189), all referring to the material world.
- 12 Surveying some translations the word is translated as
 - “world’s goods” (NKJV; ESV; NASB; NRSV); “goed der wereld” (Statenvertaling); “Welt Güter” (LU 84); “goed van die wêreld” (1983 Afrikaans translation); “world’s means” (NAB);
 - “earthly possessions” (ISV); “irdischen Besitz” (REB); “material possessions” (NIV);
 - “in de wereld een bestaan heeft” (1951 Dutch translation); “qui est riche” (BFC).
- 13 There is no reference to creation in the Letters, and it is not an issue. J. Painter, *1, 2 and 3 John* (Collegeville: Liturgical Press, 2002), *ad loc.*, nevertheless remarks: “While there is no explicit teaching on creation, the teaching of the Gospel, which seems to underpin that of the Epistles, should be presupposed.”

general. Although some argue that the use here is to the world as *place*¹⁴ or to *people who do not belong to God*,¹⁵ the most probable reference is to *people in general*.¹⁶ The false prophets and deceivers went out and worked among people in different places, also among orthodox believers whom they wanted to deceive, as 2 John witnesses.¹⁷ This also excludes the option that the reference is only to the people not belonging to God. Here the focus of the influence of the deceivers seems to fall on people and not on the places they found themselves.

c) *Kosmos as humans not believing in God*. In 4:9 it is said that God sent his Son into, and as saviour of the world. He is the propitiation for the sins of the whole world (2:2), showing that the intention of God is not to save only some, but everybody who believes in Jesus (5:11–13).¹⁸ Although these references seem to have all people in mind, they typify them as people who are in need of salvation, i.e. as people not believing in God (yet).¹⁹ The initial mission of Jesus was to a total world in darkness and in need of salvation. This corresponds to the anthropology of the Johannine material, typifying all people as being in darkness and in need of salvation. It is also stated that the *kosmos* does not know God and his people and that it hates believers (3:1, 13). The reference of *kosmos* here is to people who do not know God/Jesus (3:1) and stand in active opposition to believers, hating them.²⁰ The same reference seems to apply to the usages of *kosmos* in 4:4, 5. In 4:4 believers are said to be “of God” and are therefore victors, since He who is in them is greater than he who is

14 R. Bultmann, *The Johannine Epistles* (Philadelphia: Fortress, 1973), 63; C. Haas, M. de Jonge, and J. L. Swellengrebel, *A Translator's Handbook on the Letters of John* (New York: UBS, 1972), 116, talks about the “sphere” where the antichrist is working.

15 S. S. Smalley, 1, 2, 3 *John* (Waco: Word, 1984), 225, 227.

16 I. H. Marshall, *The Epistles of John* (Grand Rapids: Eerdmans, 1978), 208, implies it. See also the discussion later on under point c where it is argued that the reference in 4:17 might also be to people in general.

17 Smalley, *John*, 259, remarks, the world is “not only the place where God is at work for man's salvation, but also the sphere where evil forces may be active.”

18 So *ibid.* 40; Brown, *Epistles*, 224; Strecker, *Johannesbriefe*, 94; Painter, *John*, 159. Cf. U. Schnelle, *Die Johannesbriefe* (Leipzig: Evangelische Verlagsanstalt, 2010), *ad loc.*

19 Cf. Brown *Epistles*, 517, who notes that Weiss wants to see the use as negative but that incarnational uses of κόσμος like this are actually positive; so also Painter *John*, 159; M. J. J. Menken, 1, 2 *en 3 Johannes*, (Kampen: Kok, 2010), 88; Marshall, *Epistles*, 214, by implication. Smalley, *John*, 227, wants to see the use as “neutral,” thus missing the emphasis on people in need of salvation.

20 Cf. 3:13; Haas, De Jonge, and Swellengrebel, *Handbook*, 55; Marshall, *Epistles*, 190—διὰ τοῦτο ὁ κόσμος οὐ γινώσκει ἡμᾶς, ὅτι οὐκ ἔγνω αὐτόν (v. 1)/ εἰ μισεῖ ὑμᾶς ὁ κόσμος (v. 13).

in the world. In this comparison the use of the word “world” seems to focus on people in whom spirits of error and/or the antichrist(s) can work (see the immediate co-text in Chapter 4), implying that “world” here should be understood in terms of unbelievers.²¹ In 4:5 the word *kosmos* is used three times, but with different meanings. The first two usages in this verse will be treated under the next point. The last reference to the *kosmos* is evidently to people who do not believe.

The reference in 1 John 4:17 is ambiguous, namely, “as he is so also are we in this world”—it could be understood as referring to the world as dwelling place, people, or people who do not believe. Painter²² in his commentary on 4:17, for instance, moves between the meanings of “unbelieving people” who did not recognize Jesus (using John 17:9–26 as parallel)²³ and the world as place where Jesus is no longer, since he ascended to the Father. Strecker seems to interpret the world in this verse as referring both to people who do not believe or people in general when he says: “So muss es geschehen, wo die christliche Gemeinde ihren Auftrag wahrnimmt und ihr Agapesein in der Welt als verbindlichen Auftrag für die Welt versteht”;²⁴ love must be expressed “in und an der Welt.”²⁵ Love for one another as well as for unbelievers (i.e., everybody, both believers and unbelievers) is included here, as the context of v. 17 indicates.

d) *The ungodly reality in opposition to God.* In several cases the word *kosmos* seems to refer to a more general, inclusive reality, including more than just humans.²⁶ It seems to refer to an ungodly reality, also spiritual powers (though not necessarily), that may be distinguished from and stand in opposition to God as “realm of hostility to God.”²⁷ In 4:5 it is mentioned that there are people “of/from the world,” a phrase that stands in direct opposition and “im schärfsten Gegensatz”²⁸ to those who are “of/from God” in 4:4.²⁹ They are of/from this world, meaning their origin is from the world—in this context “world” might refer to evil as an individual entity encapsulating everything that is evil. This idea of general, apocalyptic “evil” is found in both 1 John 2:18 and 2 John 7.

21 There is wide agreement among commentators about this—cf. Haas, De Jonge, and Swellengrebel, *Handbook*, 55; Smalley, *John*, 225; Painter, *John*, 262; Menken, *Johannes*, 82.

22 Painter, *John*, 281.

23 Cf. also Smalley, *John*, 259.

24 Strecker, *Johannesbriefe*, 252; Schnelle, *Johannesbriefe*, *ad loc.*

25 Ibid., 251.

26 Against C. G. Kruse, *The letters of John* (Grand Rapids: Eerdmans, 2000), 149.

27 Brown, *Epistles*, 498.

28 Schnackenburg, *Johannesbriefe*, 225.

29 Painter, *John*, 263, recognises the references to God and the world in vv. 4 and 5 as an “antithetic parallelism.”

In 2 John the singular antichrist seems to be symbolic of the apocalyptic evil that was expected. This is the evil influencing people. The *kosmos* in this context is this ungodly, evil reality from which these people come and whose “language” they speak.³⁰ It typifies them as not being of God, to the contrary.

According to 5:4 God’s children are overcoming this world through faith. Those people who are “of God” stand as victors over the world. This seems to describe an existential contrast. The reference here could obviously also be to unbelieving people (point c), but in this context it seems more plausible to understand the use of *kosmos* as referring to the world as the entity opposed to God, including the evil spirits and the devil (3:4–10).³¹

A small, dynamic image of the opposition between God and *kosmos* is presented in the six occurrences of the word *kosmos* in 2:15–17. Here *kosmos* is presented as a) an entity that could be loved and served as temptation;³² b) having things (like lust or pride) in it that are also of/from/out of it i.e., it possesses things, and things have their origin in it. These references are not to the *kosmos* as cosmic order, but to what is in and of this *kosmos*,³³ representing its character; and c) something that will pass away with everything in and of it.

In each reference to the evil *kosmos* there is a contrasting remark: that love of the *kosmos* stands in contrast to the love of God; things having their origin of the world are not of God; or the *kosmos* will pass away, but the person who does the will of God abides forever. The *kosmos* here represents a reality³⁴ that opposes the divine reality,³⁵ both on the level of existence (lust comes out of the world) and on the ethical level (lust does not correspond with the love or will of God).³⁶ It does not only refer to people or to physical things (i.e. hating the material world),³⁷ but to a separate reality that stands in opposition

30 Smalley, *John*, 227; Strecker, *Johannesbriefe*, 216.

31 So Smalley, *John*, 270; B. F. Westcott, *The Epistles of St John* (Logos online Library, 1892), 144; Schnackenburg, *Johannesbriefe*, 253, emphasizes the scope of κόσμος here by describing its reference as “alles Gottfeindliche.” Marshall, *Epistles*, 209, restricts the reference of κόσμος to those in opposition to God as well as their evil attitudes; so also Kruse, *John*, 172.

32 Marshall, *Epistles*, 142.

33 Smalley, *John*, 87.

34 This includes negative attitudes—Haas, De Jonge, and Swellengrebel, *Handbook*, 55; Smalley, *John*, 86.

35 Klauck, *Johannesbrief*, 138.

36 Smalley, *John*, 86, argues that this is not a cosmological contrast but an ethical one. The main emphasis in these verses is indeed proper behavior, but the distinction between God, his love and permanency, and the world do carry implicit spatial differentiation—God’s reality should be distinguished from this reality.

37 Cf. Marshall, *Epistles*, 143; Schnackenburg, *Johannesbriefe*, 134.

to God, which of course includes lusting people, but also lust as such. It most probably also include lifestyles that were linked to practices of lust, like feasts. Dodd, for instance, thinks it refers to the contemporary pagan society with everything associated with it.³⁸ Here we have a cosmic division between God and the evil reality.³⁹ They stand opposed to one another and do not overlap. Both the physical and the spiritual realities are included in the use here.

In 5:19 we read: “We know that we are of/from God, and the whole world lies in the power of the evil one.” This expression (especially “whole” world) is problematic. Brown rejects the possibility of translating it as “the world as a whole,”⁴⁰ something Westcott suggested. On the other hand, it cannot carry the same meaning as is the case in 2:2 (see c above),⁴¹ referring to all the people of this world, since believers are clearly excluded here; the opposition to God and his people is clear. The evil one is distinguished from the *kosmos*, since he is holding the world in his power—there is the idea of dependence on the evil one.⁴² It therefore seems as if the *kosmos* as entity, both people and what else could be associated with the world, namely, lust, pride, etc., are intended here. The reference seems to be broader than simply unbelieving people.

The analysis above shows that the word *kosmos* is used in different ways in John’s letters, depending on the co-texts, and context.

- The word is used to refer to the world as physical, material reality forming the habitat people need to exist, without any moral or other underlying overtones.
- The reference to people in general pictures them as people who are by implication also moral agents among whom the false prophets work. They are portrayed as people who should and can make a choice. These are the people to whom God sends his Son, who should be believed in (John 3:16).
- The word *kosmos* is also used to refer to people without a relationship to God. This reference is basically theological in nature, as is the next reference to the evil reality. The cosmology is in these cases formulated and developed in terms of relationships with God, i.e. in theological categories.
- The evil reality that stands in opposition to God.

38 C. H. Dodd, *The Johannine Epistles* (London: Hodder and Stoughton, 1946), 42.

39 Cf. Smalley, *John*, 81.

40 Brown, *Epistles*, 623.

41 So Klauck, *Johannesbrief*, 338; Smalley, *John*, 304.

42 Brown, *Epistles*, 623.

The view of the *kosmos*, based on the use of *kosmos* in the letters, is that there is a physical reality with people living on it. This physical reality is impacted by spiritual realities, and this becomes evident through the attitude and actions of people. Both the physical reality and the evil spiritual reality with everything it includes (even the devil or evil one) are in some cases referred to by the word *kosmos*.

However, it should be noted that there is no indication that God or the Spirit is included in the semantic field of *kosmos*. Although God is active in the *kosmos*, he is not designated as part of the field of reference or semantic field covered by the word *kosmos*. In this way God is excluded from the created world with the people and evil reality in it, including their goods and lusts, just like creation and creator are distinguished or the ethically good and evil are distinguished.

John's cosmological views are theologically coloured—they are mainly presented in the light of the divine. The focus in the Letters is not on a creational cosmology, but is dominated by a theological cosmology. This theological perspective inspires special nuances in John's cosmology. It is interesting to note that "children of God" are also not part of the semantic field of *kosmos*—they indeed stand in opposition to the *kosmos* and have overpowered it (5:4). However, in another sense they were part of it *before* their spiritual birth, and as physical people they still remain dependent on the goods of this world (3:17), although they do not love it, since they love God. In this sense they are still part of the *kosmos* as material, physical reality, but spiritually they cannot be designated as being part of the *kosmos* in the same sense as the unbelievers or the evil reality.

3 Theology and Cosmos: Transcendental Realities as Part of the Universe

The semantics of a concept cannot be restricted to the use of a word or words. Concepts are also developed in other descriptive ways.⁴³ In the case of John, where the use of the term is theologically coloured, this is of special significance. There is no indication where the world comes from, but in the light of the creation theology of John 1:1–18 it can be assumed that God is the creator. The devil, who sinned from the beginning (3:8), is also just announced, without

43 One needs not to use the word "winter" to describe that time of year—descriptions like, "the snow is falling and it is very cold, it is that time of year again" would refer to winter without the specific use of the word.

any indication of the origin of the devil and also without any discussion of why the devil has power over the *kosmos* and his works have to be destroyed (3:8).

Considering these central theological data, it must be assumed that there were theological explanations behind them that are not developed or discussed in the letters. In other words, the letters are assumed to be embedded in a broader theological framework. In Johannine studies it is usually assumed that the Gospel tradition gives an indication of this interpretative framework, but it will be argued later that apocalyptic ideas are part of this cosmological framework, suggesting that 1 John also reflects other early Jewish-Christian traditions.

3.1 *Spatially Distinct: Indirect Spatial References—A Divine Reality apart from the Kosmos*

Spatial contrasts like heaven and earth, above and below, typical of the Gospel, are not directly mentioned in the Johannine letters. As was already discussed, the alternative reality of God (i.e., the above, the heaven, to use Gospel terms) is distinct from and stands in contrast to *kosmos*. It is *inter alia* indirectly referred to in what could be called spatial terminology, but that is not all. Qualitative descriptions dominate, giving the cosmology its distinct theological and ethical character.

Verbs of action or movement confirm a reality outside this *kosmos* from where God acts. He *sends* his Son *into* the world (4:9, see also 4:10, 14 as well as John 3:17; 10:36), implying a space outside the *kosmos* from where Jesus moves into the *kosmos* (!—note the term). Obviously, if the recipients of this Letter were in any way acquainted with the contents of the Gospel—which they most certainly were⁴⁴—the idea of heaven, or the above from where Jesus came to the *kosmos* or below (John 3:31; 8:23), would most certainly have been recalled.

The return of Jesus to his Father in heaven—an important theme in the Gospel (for instance, 3:13; 6:62; 20:17)—is also not explicitly mentioned but obviously assumed as part of the implicit knowledge of the recipients of the letters. This knowledge is needed to make sense of the remarks that Jesus is currently *with* the Father as *paraklētōs* (2:1), but also of his expected appearance at his *return* from where he now is (2:28; 3:2). This implies spatial distance between the *kosmos* and the Father and Son. It is evident that the spatial framework of the letters assumes that of the Gospel, but it is not foregrounded.

44 For the relation between the Gospel and the Letters, cf. Marshall, *Epistles*, 31–42; Schnackenburg, *Johannesbriefe*, 34–38; Brown, *Epistles*, 14–35; Painter, *John*, 58–74; J. G. van der Watt, *An Introduction to the Johannine Gospel and Letters* (London: T. & T. Clarke, 2007), 22–25; Menken, *Johannes*, 10–12.

3.2 *Qualitative Cosmology: God and Kosmos Should Qualitatively be Distinguished*

God presents a transcendental reality that is qualitatively ideal and perfect in contrast to evil. This is qualitatively expressed in different ways. God and Jesus are sinless (3:5, 8), are the truth (4:1–6),⁴⁵ and are righteous (2:28); the light that shines in darkness (1:5; 2:8–11),⁴⁶ or the love that overcomes hatred (4:8, 16).⁴⁷ God is also qualitatively superior; he is greater than our hearts because he knows everything (3:20) and his testimony is greater than that of men, since he cannot lie (5:9–10). He⁴⁸ is also greater than he who is in the world (i.e., the devil or evil one) (4:4). Also in terms of qualitative existence God is superior. In contrast to the *kosmos* that passes away, God and the one associated with God abides for ever (2:17).⁴⁹ This is a direct allusion to that which is permanent versus what is earthly and decays,⁵⁰ expressing a common ancient pursuit of permanency,⁵¹ which the earth and what belongs to it cannot offer.

God is distinguished from the *kosmos*, as is his people. They also stand in contrast to the world (5:19) and evil (3 John 11). Having eternal life, they are qualitatively distinguished from the *kosmos*—evil will not be able to touch God's people (5:19); neither should they imitate evil (3 John 11). This illustrates again in what measure the cosmology is expressed in theological categories.

In short, the use of the word *kosmos* does not cover the spiritual reality related to God, which is clearly distinct from the *kosmos*, and is expressed within a cosmology that is constructed *via* qualitative and theological distinctions.

3.3 *The Cosmological Gap—Is There a Solution?*

Nobody has seen God (4:12, 20), but through the presence of Jesus this invisibility is facilitated—Jesus came in flesh, even though this is a point of contention between the false teachers and the author(s) of the Letters (1 John 4:2; 2 John 7). The presence of the divine, eternal life, truth, and righteousness (2:1, 29) becomes visible through the presence of the fleshly Jesus, the bringer of eternal

45 Smalley, *John*, 215.

46 Brown, *Epistles*, 225–30.

47 Schnackenburg, *Johannesbriefe*, 228.

48 The “he” that is greater than the one in the world (4:4) most probably refers to God (Haas, de Jonge, and Swellengrebel, *Handbook*, 117), but it could also refer to God in Jesus or even the Spirit. Smalley, *John*, 227, argues that no choice should be made, since all these meanings are intended.

49 Painter, *John*, 195.

50 This also implies the end of this created world; cf. Smalley, *John*, 87; 1 Cor 7:31; 2 Pet 3:7–13; Rev 21:1–4.

51 Cf. Isa 40:6–8; Job 14:1–4; Ps 90; Jas 1:9–10.

life (1:1–3).⁵² He became flesh (4:2) and could be seen, heard, and touched (1:1–3). Through the incarnation of Jesus, the divine reality “physically entered” into this historical, material world. He consequently offered believers the example of what the divine reality looks like in human form, an example that should be mimed (2:6). He then becomes the way for people to share in this divine reality—by believing in him people are begotten of God and become children of God (5:1–2, 13).

An important anthropological point that has bearing on the cosmology and which is typical of Johannine theology should be noted here: becoming part of the family of God means passing from death into life (3:14).⁵³ The view of people is that they are all “dead” and in darkness. They are therefore part of the reality of the evil one and are indeed in his power, unless they become part of the family of God (5:19) through Jesus. Anthropologically, as a point of theological departure, people are regarded as children of the devil, and by themselves they cannot change their ontological status. In Jesus, however, the divine life becomes physically available and accessible. His presence changed the ontological and cosmological possibilities for people. Humans are now enabled to partake in the transcendental reality by receiving eternal life through their union with Jesus, thus entering into an intimate relationship with the transcendental God—they are born into the family of God.⁵⁴ They are indeed “begotten of God . . . for God’s nature abides in him” (3:9).

On the one hand, believers still exist in this material world as part of an earthly family, but by receiving eternal life they are also born into the transcendental family of God. To put it differently, in Jesus a new “species” came into being, namely, a “species” that is human on this earth, but that also shares in the divine reality of God. They are part of the divine reality, but physically still remain in this physical world with its own existential and ethical challenges. Two realities thus merge and are united in one human person, the transcendental and the earthly. Believers are changed in their being, and that must be expressed in the physical world through moral behavior, but believers are still fully flesh in this world, which challenges them ethically. In them two realities are united, which opens the way for other people who believe in Jesus

52 Bultmann, *Epistles*, 10–20.

53 Painter, *John*, 239–41.

54 Cf. the filial language, such as being born, father, son, etc. in the letters; Cf. also J. G. van der Watt, “Ethics in First John: A Literary and Social Scientific Perspective,” *CBQ* 61, (1999): 491–511; D. G. van der Merwe, “A Matter of Having Fellowship: Ethics in the Johannine Epistles,” in: *Identity, Ethics, and Ethos in the New Testament* (Berlin: De Gruyter, 2006), 535–63.

to become “of the same species.” In Christ the essential nature of cosmology changed.

Obviously, this could create problems of its own, especially in a group orientated society where the identity and lives of individuals were dependent upon and determined by the group ethos of the family they were part of. Belonging to two families naturally would result in split loyalties and eventually conflict. Which group’s ethos should be favored and followed? Which family should be primary in forming a person’s identity and consequent behavior? According to John, it is the family that belongs to God. He is light, and believers should act as people who belong to the light (1:5–8). Any action orientated towards a person’s own desires is regarded as loving this world and not as love of God (2:15–17).

One aspect must be emphasized a little more. As was argued, the transcendental reality is not directly visible in/to the earthly/physical reality. Nobody has seen God (or the devil for that matter—4:12, 20). Nevertheless, within people the spiritual reality and the earthly reality co-exists, i.e. both could be and are present within the same space (person). The presence of this spiritual reality (either divine or evil) in humans *becomes visible* in the material world in different ways, namely, by remaining in the confession (4:15) and word/commandments of Jesus (2:5, 14, 24; 3:24; 2 John 9), which imply concrete actions. According to these commandments, these actions involve remaining in love (2:15; 3:17; 4:9, 12) and righteousness (2:28–29).

These actions are *inter alia* inspired by the Spirit that represents a way in which the divine reality is present and interacts with people as 3:24 says: “All who keep his commandments abide in him, and he in them. And by this we know that he abides in us, by the Spirit which he has given us.” The (S)pirit(s) form the interface between the spiritual realities and the physical human reality: people experience God through the Spirit⁵⁵ and stand under the guidance of (S)pirit(s).⁵⁶ The type of spirit that is active in a particular person becomes evident in activities, like confession, prophecy, and moral actions. In 4:1–6 the presence of the Spirit of God is evident in the confession of Jesus as the truth. The Spirit (the word “anointment” is used to refer to the spirit or spirit-related activities) also teaches them in truth, an action that was necessary if you are part of a new family (2:20–27). It seems plausible to argue that what happens within the group that is in line with the truth could be attributed to the Spirit.

Cosmology and anthropology thus overlap. The earth and specifically people are the sphere where different cosmological realities overlap and interact.

55 Schnackenburg, *Johannesbriefe*, 208–09; Klauck, *Johannesbrief*, 225–26.

56 Brown, *Epistles*, 465–66.

In this sense humans are the “space of unfolding cosmology,” although the cosmology is theologically determined.

Brief attention should also be given to the description of devil within the cosmological framework. Within the spiritual reality there is also opposition, namely, between the reality characterized and defined by God and the reality characterized by the devil. Both of these spiritual realities overlap with the earthly/physical world, but they do not overlap one another; they stand in absolute opposition.

The devil was there and sinned from the beginning (3:8) as transcendental opposing power to God. No indication is given of where the devil comes from and why the devil opposes God. Knowledge about these things is simply assumed.⁵⁷ What is stated is that the power of the devil was of such extent that the Son of God had to appear to destroy his works; however, it is not completely destroyed, since the devil, or the evil one, still has power over the *kosmos* (= those who are not of God, 5:19). His powerful expressions come in the form of a) the antichrist (2:18) whose works are evident in the actions of those who are no longer in the midst of the believers,⁵⁸ b) the spirit of error or of the antichrist whose presence is visible through the false prophets (4:1–6);⁵⁹ and c) Cain, as symbolic expression of those who murdered their brothers, i.e., all those who do not care for believers (3:11–18).⁶⁰

In short, opposing spiritual realities (of God and the devil) overlap with the earthly reality, and as such influence the earthly reality. The influence is evident in the actions of people that are influenced by (S)pirit(s) representing each reality. This confirms that the way the letters view this reality is essentially theologically determined and is presented and described in those terms. The events on earth are understood and explained in terms of the presence of spiritual realities that determine the morality of the people on earth, while there is no development of, for instance, biological, or natural, cosmological categories—the worldview and its narrative are not developed in these terms.

57 Cf. Bultmann, *Epistles*, 99–100; C. S. Keener, *The IVP Bible Background Commentary: New Testament* (Downers Grove: InterVarsity Press, 1993), *ad loc.* for possible roots.

58 Cf. Schnackenburg, *Johannesbriefe*, 145–49; Brown, *Epistles*, 333–37; Klauck, *Johannesbrief*, 149–50.

59 Brown, *Epistles*, 489–91.

60 Painter, *John*, 238–40; T. Thatcher, “Cain the Jew the AntiChrist: Collective Memory and the Johannine Ethic of Loving and Hating,” in *Rethinking the Ethics of John*, edited by J. G. van der Watt and R. Zimmermann (Tübingen: Mohr Siebeck, 2012), 350–73.

4 The Cosmology of 1 John . . . Expressed in Apocalyptic Categories?

An important aspect of cosmology is the way in which the cosmos will end, which is often expressed in theoretical or mythical terms. The cosmological drama in 1 John has apocalyptic traits.⁶¹ Two opposing spiritual powers stand in conflict in this world, namely, the divine and evil, God and the devil. This physical world is therefore also viewed in terms of this (final) conflict. However, the negative situation in the present will change to an ideal one in the future according to the hope of believers (3:1–3). But this will only happen after the escalating presence of evil in the form of the antichrist, deception, and false prophets.

There are firstly some references to the cosmic battle. Although the conflict itself is not described in any detail, as for instance in the Apocalypse, the use of certain concepts within the arguments implies an underlying presence of such an eschatological conflict.

The destruction of the works of the devil by Jesus is highlighted in 3:8. This does not imply a total destruction of the presence of the devil in this world, since evil remains a factor in the everyday experience of the Johannine group. Not only is the “whole world [except the children of God] in the power of the evil one” (5:19), but the Johannine group concretely experienced the destructive presence of the antichrists (2:18, 22; 4:3) and false prophets who act under the influence of the spirits of error (4:1–6; 2 John 7–11). In 3 John there is opposition to the authority of the elder, something that does not reflect behavior in truth. The material world is the place where the spiritual battle between good and evil unfolds. People are influenced by the spiritual reality which is qualitatively distinguished as being either good or evil. The spirits of error work in false prophets as the Spirit of Truth works in the believers, impacting concretely their lives and actions. The “battle” between good and evil, truth and error, becomes evident in the actions, desires, and group alliances of people: believers have the anointing which teaches them and keeps them in truth (2:27); the people of the world hate believers and even kill them, because they are from the evil one (3:11–13); believers, however, have passed from death to life and live a life of truth (3:19) and love for one another (3:14–17). This final conflict is related to the “last hour” (2:18), an apocalyptic expression.⁶²

61 Cf. Bultmann, *Epistles*, 35–36; Strecker, *Johannesbriefe*, 62–63. Menken, *Johannes*, 47–48, sees early Christian traditions as the foundation of the Johannine ideas here.

62 Cf. Smalley, *John*, 101; Marshall, *Epistles*, 148.

The presence of the antichrists⁶³ is directly linked to the arrival of the “last hour” (2:18), a term associated with the final eschatological events.⁶⁴ The phrase “last hour” occurs only here in the New Testament, but the absence of an article (ἐσχάτη ὥρα) might suggest that it was a general and well known phrase in Greek,⁶⁵ although Bultmann suggests that the term might stem from Jewish apocalyptic literature.⁶⁶ It seems to refer to the period of escalating evil before the final parousia and judgment,⁶⁷ meaning that the “community’s own story is being played out in the immediate context of apocalyptic events of the end time.”⁶⁸

There is therefore indeed a power struggle that still rages, but the outcome is fixed and anticipated in hope (3:2). Believers are described as being strong, and having conquered evil (2:13–14; 4:4; 5:4–5). This power should apparently be linked to their faith in Jesus (5:4–5): “this is the victory that has overcome the world—our faith in Jesus.”⁶⁹ The eschatological certainty exists that the evil is overcome, and the eschatological hope exists that good will replace evil, or purity impurity (3:3). “For John is in no doubt about the ultimate outcome of the conflict (‘he in you is *more powerful*’; cf. further 5:4–5; Rev 5:5; 12:11; 17:14). With such an assurance, victory in the present encounter between right and ‘worldly’ wrong may be achieved by the faithful Christian.”⁷⁰ This places John firmly within early Christian convictions about eschatological expectations.

Secondly, in line with apocalyptic thinking, this order of tension and conflict will be resolved through the final judgment and vindication of believers,

63 Cf. 2:18, 22; 4:3; 2 John 7; see also 2 Thess 2:1–12; Rev 12–13, although the term antichrist is not used in these passages there might be a conceptual link as Arndt, *Lexicon, ad loc.*, or Bultmann, *Epistles*, 36, suggest; see also Strecker, *Johannesbriefe*, 214; Smalley, *John*, 98–100. Marshall, *Epistles*, 151, warns against an apocalyptic over interpretation of these passages in 1 John.

64 Klauck, *Johannesbrief*, 234; Brown, *Epistles*, 497.

65 Haas, de Jonge and Swellengrebel, *Handbook*, 61; Smalley, *John*, 95.

66 Bultmann, *Epistles*, 36. Smalley, *John*, 95–96, describes the development of the idea of a time that will precede a final consummation.

67 Smalley, *John*, 95.

68 Strecker, *Johannesbriefe*, 63.

69 Bultmann, *Epistles*, 179–80, talks of “apocalyptic rests” here.

70 Smalley, *John*, 227, remarks that the “allusion to the battle between spiritual truth and error, God and the evil one, grazes the edge of dualism,” a dualism which “is ethical and not cosmic (see the comment on 2:15), Jewish and not Greek.” The ethical and cosmic cannot be separated so sharply, since the ethical flows from the ontological, which is decidedly linked to the cosmology of the Letter.

who will become like Jesus. The emphasis falls on the intensification of the evil during the last days,⁷¹ the final judgment, and what follows.

There are several references in 1 John to the *parousia* or return of Jesus (2:28; 3:2).⁷² Brown argues that because the term *parousia* is not explained in the text it points to “a Johannine apocalyptic tradition.”⁷³ This *parousia* will lead to the final judgment at which point believers will not shrink from him in shame (2:28)⁷⁴ or have fear, but will rather be confident (4:17–18). Believers live in the eschatological hope of this return (appearance—φανερώω) of Christ. Then they will be changed to be like him, although what they will be is not known yet (3:2–3). Their calling on earth is to purify themselves (ἀγνίζει ἑαυτόν) as Jesus is pure (3:3), a possible reference to what they will become. With Jesus’ return the final cosmological division will take place through the final judgment (4:17–18). The reference to the last day, together with the references to the antichrist and ensuing judgment, squarely puts the events narrated in 1 John within an apocalyptic eschatological frame.

What will happen to the evil and evil one is not developed in detail, except that it is implied that they have reason to fear related to punishment (4:18).

What is eventually going to happen with the return of Jesus (2:28; 3:2)? There were several possible “models” available to give an answer to this question, even within the Christian framework, for instance, Jesus taking believers to heaven (1 Thess 4), heaven and earth being destroyed but believers are saved and allowed to live on the new earth under the new heaven (2 Peter 3) or alternatively, that after everybody was judged in heaven and evil punished, the new heaven will descend onto the new earth and God will dwell with his people (Rev 21). There is mention in 1 John of Jesus “appearing” (3:2) or “coming” (2:28), implying the model of Jesus returning to the abode of people and then believers will be like him (3:2). In 3:3 believers are consequently encouraged to purify themselves in the light of the hope of becoming like Jesus. This implies that the coming reality will be different, at least as far as purity is concerned.

Detailed information is lacking in 1 John as to what exactly will happen at the return of Jesus. A few things are mentioned, however. There will be a judgment, which believers need not fear, but unbelievers by implication should (4:17–18).⁷⁵ The world will pass by (2:17), most probably referring to the

71 Cf. also Revelation and 2 Thess 2:1–12.

72 Klauck, *Johannesbrief*, 174, 181.

73 Brown, *Epistles*, 381.

74 Klauck, *Johannesbrief*, 174, shows that this is an apocalyptic *topos*.

75 Cf. Strecker, *Johannesbriefe*, 248–49, who also interprets this verse within a Jewish apocalyptic framework.

physical world with its lusts as it is currently known—it might be that unbelievers are included in this use of *kosmos*. What will replace this *kosmos*, if it is replaced at all, is not said. What is said, is that Jesus will appear among people and then they would become like him (3:2); it seems as if it will happen among the believers who will then be on this earth. No further remarks are found in the text.

In sum, the present and future of this world is presented within an apocalyptic framework, in which the change has already started, for instance, through the presence of eternal life (1:1–2; 5:10–12).⁷⁶ The world is pictured as the battle field between good and evil, with people being under the influence of the (S)pirit(s). This is apparent in the conflicting activities of the antichrist that mark the presence of the last day. The outcome of the conflict is already fixed by the stronger One who destroyed the works of the devil, although its power and influence have not disappeared in the cosmos. Believers, however, experience the victory already through strength that is based on their faith, although they are still experiencing the presence of evil in their earthly lives, as is clear in passages like 3:11–24; 2 John 11; or 3 John. It is not without reason that believers are warned to stay away from idols (5:21). The parousia and final judgment will see the change of the believers to become as Jesus is. What will happen to evil and the evil one is not developed any further in the Letter, except that they will have to fear.

5 Some Concluding Remarks

At this point we should return to the question what the term “cosmology” exactly refers to. It was said in the beginning that it refers to information relating to the origin, nature, evolution, and final fate of the universe. “Universe” should be understood as what can be known, even mythologically, and conceptualized in language. This definition is indeed wider than the single word *κόσμος* would suggest, but in John there is a good reason for this, since the divine reality is excluded from the semantic domain covered by *κόσμος* in John. Nevertheless, the divine reality should be included in cosmology.

The Johannine letters do not conform to a three-level cosmology which is often assumed to be common in the Bible, for instance, in the Apocalypse. This reminds us that we should refine the way we deal with the concept of the view

76 Klauck, *Der Erste Johannesbrief*, 291, of course, remarks that “die Apokalyptische Komponente ist im 1Joh ganz in den Hintergrund getreten,” reminding us that what we have here is not a full-fledged apocalyptic text.

of reality in the New Testament. There is not necessarily only one cosmology functioning in ancient texts, but several. In the Johannine letters the theological perspective dominates, and from there a quite incomplete but nevertheless very clear cosmology is presented; clear not in the sense of complete, but adequate to form a clear idea of what was intended.

There is no single cosmology that is *the true and correct* cosmology. Taking the letters as an example, it is clear that the cosmology in John's letters is the result of, i.e. derives from its theology. In such a case the argumentative authority lies with the theological assumptions. Not natural distinctions but theological categories dominate. In other cases scientific observation, mythology, etc. might form the orientating point from which the cosmology is developed. In John the point of orientation is theology. From the perspective of who God is, what he offers, and his relation to the earth, its inhabitants, and even the evil spirits, views of the origin and functioning of the reality unfold. It is therefore possible that on the basis of this information cosmologies may vary and do indeed vary. It further implies that several cosmologies might function at the same time in the same person. For instance, the theologically dominated cosmology of the Letters might co-exist with a natural, scientific view within the same person, each functioning within its own context with its own presuppositions. As such "cosmologies" are constructs of reality that serve as "vehicles" within which specific issues and questions related to cosmic reality are addressed and reality explained.

¹ John does not offer a full cosmology, but a functional, theological cosmology that branches out in spiritual and ethical categories. It is within such a framework that we should appreciate and evaluate the view of reality found in the Johannine letters.

The Cosmological Vision of John: The Evangelist as Observer and Interpreter

Mary L. Coloe

Advances in science begin with rigorous observations, which are then interpreted within a living tradition of knowledge. Hypotheses are made; experiments are trialed and with further observations and testing the scientific academy may come to accept the hypothesis, which then becomes the basis for further observation and reflection. Within this process a type of “faith” is called for: faith in the accuracy of the data; faith in the logic of thought processes and equations. As Elizabeth Boyle comments, “Both scientists and theologians make acts of faith as they explore parallel paths in the land of mystery.”¹ At times even scientists balk from such faith when their results appear to lead to impossibilities. Most famously, Einstein doubted his General Theory of Relativity as it would suggest a universe in a constant state of expansion from a singular point—something beyond even his imagination. Sixty years later his initial findings were confirmed by Arno Penzias and Robert Wilson, who “overheard” the cosmic radiation from this initial “big bang.” Sometimes science calls for faith in something not yet discovered but whose existence is required to make sense of available data. This was the case when the Higgs-Boson particle was proposed in the 1960s as a theoretical possibility to account for mass in sub-atomic particles where such mass was not expected. What was once only imagined was finally discovered in July 2012 using the large hadron collider at the European Organization for Nuclear Research (CERN).

Theology, known in the Middle Ages as the “queen of the sciences,” advances through similar processes of observation followed by interpretation within a living tradition of knowledge. Where science engages with the physical world in its materiality, theology engages with the world in its relationality and asks questions about the human person in relation to other persons, to the world and to an experience of a transcendent reality called in the Judeo-Christian tradition “God.” As in the case of science, interpretations are validated through time and continued coherent experience. Just as science continues to change and develop through new discoveries and better technological skills, so too theology changes in response to new situations, new archeological and manuscript discoveries, and new questions. As with science a certain “faith” is

1 Elizabeth Michael Boyle, *Science as Sacred Metaphor: An Evolving Revelation* (Collegeville, MN: Liturgical Press, 2006), xii.

required, particularly faith in the validity of one's experience of the transcendent that is then able to relate to a tradition wherein one's experience can be recognized and validated.²

The Gospel of John did not develop in a vacuum;³ it emerged from the complex matrix of first-century Judaism, which in turn had its theological roots in the experience of the Babylonian exile and the unfulfilled hopes of the exiles on their return to the land of Israel/Palestine. Observation of their post-exilic socio-political reality called for a radical rethinking of Israel's world view, giving rise to a new genre of biblical literature in response to the historical crisis of ongoing domination by world powers.⁴

1 The Crisis of Domination: How Can God Save Us?

When Babylonian power declined, the Persian Empire came to rule in the Middle East from 539 BCE for the next two centuries. Cyrus, the Persian emperor, allowed the exiles to return to their own lands, and some of the Jewish exiles returned to Jerusalem. The Prophets had spoken of this return with glowing images of a re-created Israel (Ezek 37), a rebuilt Temple (Ezek 47) within a world where God's peace flourished (Isa 55:12–13). But the reality was far different. Although the Temple was rebuilt, probably by 500 BCE, it failed to express the splendor of Solomon's sanctuary. While Persian rule allowed greater religious freedom, nevertheless Israel was no longer an independent nation. When Alexander's armies overcame Persia in 331 BCE, Greek rule curtailed and at times suppressed religious freedom. The post-exilic time seemed a far-cry from the glorious hopes promised by Isaiah and Ezekiel. The long experience of oppression by the Greek and then the Roman Empires led to a new conceptual paradigm of this world and its history.⁵

2 A helpful discussion between the goals and methods of science in dialogue with the goals and methods of religion can be found in Fritjof Capra, David Steindl-Rast, with Thomas Matus *Belonging to the Universe: New Thinking about God and Nature* (London: Penguin, 1992).

3 Alan Culpepper claims that "biblical interpretation never proceeds in a vacuum." I add to this, nor do the biblical works emerge from a vacuum. See, R. Alan Culpepper, "'Children of God': Evolution, Cosmology, and Johannine Thought," in *Creation Stories in Dialogue: The Bible, Science, and Folk Traditions*, ed. R. Alan Culpepper and Jan G. van der Watt (Leiden: Brill, 2015), 3.

4 In this paper I will focus on one movement in Second Temple Judaism—apocalyptic eschatology. Space will not allow exploration of the "Wisdom" movement discussed in Culpepper's essay, "'Children of God,'" in this volume.

5 Foreign rule was only momentarily relieved by Maccabean success against the Greeks in Jerusalem (164 BCE) and the line of Hasmonean Jewish rulers (143–63 BCE).

Gradually, faith in the fulfillment of God's promises shifted to a more distant future. In the words of Craig Evans, "Over centuries, however, it became clear that Israel (and later Judah) could not bring about the perfect Kingdom of God . . . Yet future expectations and the hope for a better world did not die; instead, the horizon shifted to the end times."⁶ It is this historical crisis of ongoing political oppression that led some Jews to a new way of imagining the world that is known as apocalyptic eschatology.⁷ This consciousness understands that the world is now under the dominion of evil powers manifested in both human sinfulness and political oppression, where the oppression is linked to a cosmic struggle between God and other powers (e.g., Isa 24:17–23; Dan 7:1–8).⁸ The eschatological age comes to a close with a savior figure who achieves victory and ushers in the final resurrection from the dead and judgment.⁹

It is important to state here that there is no single, unified doctrine of the end times. Some views allowed for an end-time resolution of this oppression within history, while other lines of thought, particularly within the apocalyptic tradition, placed such resolution beyond history, when this world or this age is brought to an end and a new age comes into being.¹⁰ What is consistent is the conviction "that human failure has so corrupted life on this earth that only a radical transformation initiated by God alone could make things right."¹¹

6 Craig A. Evans and Peter W. Flint, "Introduction," in *Eschatology, Messianism, and the Dead Sea Scrolls*, ed. Craig A. Evans and Peter W. Flint, SDBSRL (Grand Rapids, MI: Eerdmans, 1997), 1–2.

7 There were many different forms of belief among first-century Jews. Grabbe offers the following caution: "Some Jews had strong eschatological interests; others evidently did not. We have to be careful about generalization." See Lester L. Grabbe, *An Introduction to Second Temple Judaism: History and Religion of the Jews in the Time of Nehemiah, the Maccabees, Hillel and Jesus* (London: T & T Clark, 2010), 105.

8 Evans and Flint, "Introduction," 2.

9 There is no clear definition of "Apocalypticism"; there are a number of elements found in Jewish and Christian literature that are identified as "apocalyptic." For lists of these elements see David C. Sim, "Coping with the Present by Inventing the Future: Jewish Apocalyptic Texts as Crisis Management Literature," in *Ancient Jewish and Christian Texts as Crisis Management Literature*, ed. David C. Sim and Pauline Allen, LNTS 445 (London: T & T Clark, 2012), 33–36; and Grabbe, *An Introduction to Second Temple Judaism*, 88.

10 Hultgren comments: Eschatology concerns itself with "a future coming age, a period of transformed existence that God will bring about—either within history or beyond it." See Arland Hultgren, "Eschatology in the New Testament: The Current Debate," in *The Last Things: Biblical and Theological Perspectives on Eschatology*, ed. Carl E. Braaten and Robert W. Jenson (Grand Rapids, MI: Eerdmans, 2002), 67.

11 Donald E. Gowan, *Eschatology in the Old Testament* (Philadelphia, PA: Fortress, 1986), 122.

Apocalyptic eschatology provides both the theological and cosmological matrix for late second-temple Judaism and first-century Christianity.

Within the Synoptic Gospels this theological framework lies behind the expression “the reign of God” (ἡ βασιλεία τοῦ θεοῦ), an expression found only twice in John’s Gospel (John 3:3, 5).¹² The Fourth evangelist, writing from within the same theological/cosmological framework, offers a different approach.¹³ In his role of interpreting the meaning of the Jesus event, this evangelist drew upon Israel’s multiple reflections on creation, and, writing towards the end of the first century, he presents the Jesus story as a “creation” narrative encompassing the entire cosmos.

2 The Gospel of John

The opening words of the Fourth Gospel establish one of the major themes that will be developed across the following narrative. The Gospel of John and the Scriptures of Israel begin with the words, “In the beginning . . .” The reader is reminded immediately of the creation account in Genesis 1. A careful reading of the Prologue will reveal that the introductory verses of the Johannine Prologue are closely modeled on the first chapter of Genesis.¹⁴ The final chapters of John return to Genesis and situate the Johannine Passion and Resurrection within the iconography of Eden, the garden of the second creation account (Gen 2:4b–25). The two Genesis creation accounts therefore frame the Gospel’s narrative and by this structural artistry identify this Gospel as a narrative of creation.

2.1 *The Prologue*

The first eighteen verses of John introduce the reader to the major theme and perspective of this Gospel. Jesus, the enfleshed Word, has his origins in God

12 “The synoptic identification of Jesus with the kingdom is therefore an accurate reflection of the eschatological expectations of early Christians.” See, Bruce Chilton, *Pure Kingdom: Jesus’ Vision of God* (Grand Rapids, MI: Eerdmans, 1996), 138.

13 While John’s Gospel has its focus on the narrative of Jesus and so is rightly termed a “Gospel,” rather than an “apocalypse,” it does have features that align it with Jewish apocalyptic eschatology. One obvious feature is John’s use of dualism, particularly the dualism of opposing cosmic powers: God, associated with light, truth, “above”; and the Ruler of this World (12:21; 14:30; 16:11), linked to darkness, lies, “below.” This dualism plays out in the lives of human beings: in the Gospel some accept the incarnate Word, while some do not (John 1:11).

14 I first proposed this in an article, Mary L. Coloe, “The Structure of the Johannine Prologue and Genesis 1,” *ABR* 45 (1997): 1–11.

(1:1), and with God the eternal Word brings forth all creation (1:3). Creation then becomes the dwelling place of the Word (1:14), who enters human history where some reject him (1:11); but some receive him and through him are drawn into the life of God and become children of God (1:12). This is the basic story-line of the following narrative which begins with the gathering of disciples (1:19–51) and concludes with these disciples, now called “my brothers and sisters” (20:17) gathered around the risen Jesus (20:24–29),¹⁵ who is still embodied but has passed through death and now transcends the limits of material creation.

The Prologue outlines this story-line twice, first in reported speech, then at verse 14 the perspective changes and the report becomes a testimony spoken in the first person by those who experience it: the Word became flesh and dwelt among *us*, and *we* saw his glory (v. 14); John cried out, “This man was the one of whom *I* said, He who comes after *me*, came before *me*, for he was before *me*” (v. 15); from his fullness *we* have all received a gift instead of a gift (v. 16). Both major parts of the Prologue, the report (vv. 3–13) and the first-person testimony (vv. 14–17), can be set out showing how each part follows a similar movement in three stages with parallel themes.

*Bi-Partite Structure*¹⁶

Introduction (1–2)		<i>logos/God in eternity</i>	
Part 1. Story Told		Part 2. Testimony	
A (3–5)	light	we have seen	A' (14)
B (6–10)	John's voice	we have heard	B' (15)
C (9–13)	two responses	we have experienced	C' (16–17)
Conclusion (18)		Son/Father in history	

15 Along with many Johannine scholars I consider chapter 21 a later addition to the original narrative that had its ending at 20:31. For a brief discussion on the place of chapter 21 see Francis J. Moloney, *John*, SP 4 (Collegeville, MN: Michael Glazier Liturgical Press, 1998), 545–47, 62–66. Moloney concludes: “There is a crucial element of discontinuity between John 1–20 and John 21 that calls for the former’s being regarded as “the Gospel” and the latter as “the Epilogue” (p. 564).

16 For a summary of other ways of structuring the Prologue see Coloe, “The Structure of the Johannine Prologue,” 40–43.

In the first stage, vv. 3–5 speak of life and light shining in the darkness. When story becomes testimony v. 14 proclaims “*we saw his glory.*” The Word, present as the life-force within creation, has become visible, light has brought perception. The second stage moves from seeing to hearing with the witness of John, at first simply told (vv. 6–8) and then John testifies in his own voice (v. 15). The third stage recounts what happened when the Word entered human history. In this stage we learn of two responses. Some, his own people, did not receive him (v. 11), but some came to believe in his *name*, and these are given power to become children of God (v. 12). When this account becomes first person testimony, we hear of two gifts, the Law given through Moses and a gift called a true gift that *we* have received. The parallelism establishes that the “*name*” is Jesus (v. 17, cf. v. 12), and the true gift is to become God’s children.

11. He came to his own

and his own did not receive him.

12. But those who did receive him

he gave them the power to become
children of God,

17. For the Law was given through Moses

those believing in his *name*.

16. From his fullness we have all received

a gift in place of a gift.

the true gift came through *Jesus Christ*.

These parallel stages enunciate the pain and conflict of the following narrative. Jesus came to his own people, the children of Israel who had received the gift of the Law. But in Jesus another gift is being offered, “a gift instead of a gift” (v. 16),¹⁷ which some within Israel will accept, but others will choose the Law and not see in Jesus the fulfillment of its promises.

These parallel accounts are introduced by identifying the central character as the Word existing in eternity with God. The accounts conclude by identifying the central character again, only now, having told the story of the Word coming into human history, this character is given a human face as the only Son in the heart of the Father.

The bipartite structure, shown above, with three sections framed by an introduction and conclusion is found in the first creation account in Genesis 1. In this account, following a brief introduction (Gen 1:1–2), creation happens

17 $\chi\acute{\alpha}\rho\iota\nu\ \acute{\alpha}\nu\tau\iota\ \chi\acute{\alpha}\rho\iota\tau\omicron\varsigma$; $\acute{\alpha}\nu\tau\iota$ is usually translated as “upon” or “in addition to” giving the sense “grace upon grace.” Such translations impose the Pauline sense of $\chi\acute{\alpha}\rho\iota\varsigma$ onto the Johannine text; $\chi\acute{\alpha}\rho\iota\varsigma$ in ordinary Greek usage usually means gift and *anti* means instead of, in place of. See Ruth Edwards, “XAPIN ANTI XAPITOS (John 1:16): Grace and the Law in the Johannine Prologue,” *JST* 32 (1988): 3–6.

over seven days. The first three days describe three acts of separation: day 1, light is separated from darkness (vv. 3–5); day 2, the waters above are separated from the waters below (vv. 6–8); day 3, the water is separated from dry land (vv. 9–13). In the following three days God acts to populate what was created in the first days. On day 4 the darkness is filled with the stars and the moon, while the day is regulated by the sun (vv. 14–19). On day 5 the waters below are filled with living creatures while the firmament above is filled with birds (vv. 20–23). On day 6 land creatures, including humanity, appear on earth (vv. 24–31). These six days bring God’s creative activity to an end, “the heavens and earth were finished” (Gen 2:1), and the seventh day is the Sabbath of divine rest. The writer then concludes the account, “These are the generations of the heavens and the earth when they were created” (Gen 2:4a).

The Johannine Prologue thus mirrors the structure of Genesis 1 as the following diagram demonstrates:

Genesis ¹⁸			Johannine Prologue		
Introduction (1–2)			Introduction (1–2)		
A (3–5) light /darkness;	sun, stars	A'(14–19)	A (3–5)	Light	A' (14)
B (6–8) heaven/ earth;	birds, fish	B'(20–23)	B (6–8)		B' (15)
C (9–13) land/waters;	animals, humans	C'(24–31)	C (9–13) children of God		C' (16–17)
Climax: The Sabbath (2:1–3)					
Conclusion (2:4a)			Conclusion (18)		

As this diagram shows, the parallel structure of the Prologue is similar to the structure of Genesis 1 except that the Prologue has no seventh day, no Sabbath. It remains incomplete in itself, and we will hear in this Gospel that God is still working (John 5:17), that creation has not yet been finished.¹⁹ I will return to this point later.

As well as the structural parallel between Gen 1:1—2:4a and John 1:1–18, there are other points of similarity. Following the brief introductory verses, both

18 The structure of Genesis has been noted by many scholars. For a recent discussion see Joseph Blenkinsopp, *Creation, Un-creation, Re-creation: A Discursive Commentary on Genesis 1–11* (London: T&T Clark, 2011), 20.

19 So also Culpepper, “Children of God,” in this volume.

passages introduce the theme of light and darkness. “God separated the light from the darkness” (Gen 1:4); “The light shines in the darkness and the darkness has not overcome it” (John 1:5). In Genesis creation begins by three acts of separation: light/darkness; waters above/below; water/land. In John three clear distinctions are made. As already noted, there is a distinction between light and darkness (5); this is followed by a distinction between one who is the “light” and John who is “not the light” (v. 8); finally when the light comes to his own people there are some who receive him and some who do not (11–12).

The opening phrase, “in the beginning,” the significance of God’s word in both accounts, the initial theme of light/darkness, and the structural parallels suggest that the Prologue deliberately evokes the first creation account to introduce readers to the Gospel narrative.

2.2 *Passion/ Resurrection Narrative*²⁰

The creation theme is particularly significant in the Johannine “hour.” Only in John do we read that Jesus is arrested in a garden, “When Jesus had spoken these words, he went forth with his disciples across the Kidron valley, where there was a garden” (John 18:1).²¹ Only John narrates that he is buried in a garden, “Now in the place where he was crucified there was a garden, and in the garden a new tomb where no one had ever been laid” (John 19:41). The garden therefore frames the crucifixion and John emphasizes that the cross is in the *middle*, “So they took Jesus . . . to the place called the place of a skull . . . There they crucified him, and with him two others, one on either side, and Jesus in the middle (19:17–18).²² The Johannine addition, “in the middle (μέσῳ)” echoes the phrase in Genesis where God plants “the tree of life *in the middle* of the garden” (Gen 2:9).²³ The evangelist depicts the crucifixion with the iconography

20 In the Fourth Gospel death and resurrection are one event termed the “hour.” Death, in Johannine terms, marks an ending for the enfleshed Word, but this moment is but a transition into glorification. In the words of Karl Rahner, “It is death into resurrection.” See, Karl Rahner, *Foundations of Christian Faith: An Introduction to the Idea of Christianity*, trans. William V. Dych (New York, NY: Crossroad, 1978), 266. The moment of death is the moment of Jesus’ exultation when he passes into the glory he had in God’s presence “before the world came to be” (John 17:5).

21 Mark (14:32) and Matthew (26:36) name the place Gethsemane; Luke (22:39) names it Mt Olives.

22 The Synoptic Gospels mention the two criminals crucified with Jesus “one on the right and one on the left” (Mark 15:27; Matt 27:38; Luke 23:33), but only John adds, “and Jesus in the middle.”

23 LXX Gen 2:9: τὸ ξύλον τῆς ζωῆς ἐν μέσῳ τῷ παραδείσῳ. This phrase, “in the middle of the garden,” is repeated in Gen 3:3. Marie-Émile Boismard and Arnaud Lamouille, *L’Evangile*

of Gen 2: there is a garden, and in the middle of the garden is the cross, the tree of life, and at the foot of the cross stand a man, the beloved disciple and a woman, who is never named but called only “woman” (John 2:4; 19:26) and “the mother,” (2:1; 19:25) which were names given to the first woman: “She shall be called Woman” (Gen 2:23). “The man called his wife’s name Eve, because she was the mother of all the living” (Gen 3:20). These unique features of the Johannine Passion, when taken together, suggest a deliberate evocation of the primordial Garden of Eden, and a theology of creation.

Following the scene where Jesus alters the relationship between his mother and disciple to one of mother and son, the narrator states that Jesus knew “that all was now finished.” Then, after receiving the vinegar Jesus states, “It is finished—τετέλεσται” (19:30). The verb τελέω reiterates God’s judgment at the completion of his six days creative work—“thus the heavens and the earth were finished (συνετέλεσθησαν) . . . And on the seventh day God finished (συνετέλεσεν) the work” (Gen 2:1–2).²⁴ God’s work, which was begun in creation, is brought to its completion at the cross as Jesus dies and breathes down the Spirit to the couple standing beneath the cross. In the next verse we are told that it was the day of Preparation before the Passover and the eve of Sabbath, and the narrator notes “that Sabbath was a great Sabbath.” In the “hour,” Jesus brings the work he was sent to accomplish to its conclusion. Throughout the Gospel Jesus had claimed that God in fact was still working (5:17), that the creative work of God had not yet been completed, and that he has been sent to complete (τελέω) this work (4:34; 5:36; 17:4). In discussing the Prologue and its close structural relationship with Gen 1, I noted that the Prologue has no equivalent to the seventh day, the Sabbath, and I made the point that in this Gospel God is still working. It is only with the death of Jesus that creation can hear the words, “it is finished,” and these words usher in the *great Sabbath*, marking the completion of God’s creative work that has been in process since the dawn of time “in the beginning” (Gen 1:1).

In the first chapter of Genesis, God’s final work on day 6 is the creation of humankind, and this too is Jesus’ final act, in creating a new quality of human life. When he speaks to his mother and the disciple, he changes their relationships. The disciple becomes “son” to the mother of Jesus, and so the disciple is now in a new fraternal relationship with Jesus. The disciple is reborn as brother

de Jean. *Synopse des quatre évangiles en français*, vol. 3 (Paris: Cerf, 1977), 452; also Frédéric Manns, *L’Évangile de Jean à la lumière du Judaïsme*, SBFA 33 (Jerusalem: Franciscan Printing Press, 1991), 426–27.

24 Martin Hengel, “The Old Testament in the Fourth Gospel,” in *The Gospels and the Scriptures of Israel*, JSNTSup 104 (Sheffield: Sheffield Academic, 1994), 393–94.

to Jesus and is therefore incorporated into *his* sonship. Through Jesus' words, the disciple is "born anew" as child of God, as the Prologue had promised (John 1:12). The narrator then states that the disciple "took her to his own—εἰς τὰ ἴδια."²⁵ This phrase repeats the words of the Prologue describing Jesus coming to his own, εἰς τὰ ἴδια (1:11) and the consequences that some reject him, but others receive him and are given "the power to become children of God" (1:12). The phrase "to his own" forms an *inclusio* that looks back to the promise given in the Prologue and now marks its fulfillment at the cross.

2.3 The Appearance Narratives

In one sense the Gospel is completed at the cross. The cross is the moment of Jesus' exaltation. In death he has been lifted up and glorified. Disciples have now become brothers and sisters of Jesus, and children of God, as the risen Jesus confirms when he says to Mary Magdalene—"Go to my *brothers and sisters* (ἀδελφούς) and say to them, 'I am ascending to my Father and *your Father*, to my God and your God'" (20:17).²⁶ This leads to the question about the function of chapter 20 in this Gospel. Why is this chapter needed? I will return to this question following the examination of the Johannine account, giving particular attention to some of the details that are not present in the Synoptic accounts.

2.3.1 The First Day

Two time markers are given: the first day of the week (20:1, 19) and eight days later (20:26). The first day is the day after the Sabbath, which commemorates the completion of God's creative activity; the first day therefore signifies the start of a new creation. It is appropriate that the narrative begins in darkness (c.f. Gen 1:1), when Mary Magdalene goes the tomb; as the events unfold, a new day—the first day—dawns. In first century CE Jewish and Christian writings, the terminology of the "first day" shifted to the "eighth day" to reflect ideas about the eschatological age when God would fulfill all Israel's longings. The "eighth day" terminology is first found in Christian literature in the Epistle of Barnabas (ca. 95–135):

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- 25 Translations of this idiom frequently read: took her to his own home. The addition of the word "home" minimises the theological importance of this scene, rendering it rather simplistically into Jesus taking care of his mother by giving her into the care of the Beloved Disciple. I prefer to translate this: "the disciples took her *as* his own." In other words, in claiming the mother into (εἰς) his own *being*, the disciple claims or receives the new set of relationships instituted by Jesus, including a new relationship with God as a child of God.
- 26 ἀδελφοί is an inclusive plural meaning both brothers and sisters. See "ἀδελφός" in Henry George Liddell and Robert Scott, *A Greek-English Lexicon* (Oxford: Clarendon Press, 1974).

He further says to them, *Your new moons and Sabbaths I disdain* [Isa 1:13]. Consider what he means: Not the Sabbaths of the present era are acceptable to me, but that which I have appointed to mark the end of the world and to usher in the eighth day, that is, the dawn of another world. This, by the way, is the reason why we joyfully celebrate the eighth day—the same day on which Jesus rose from the dead; after which He manifested himself and went up to heaven (*Ep. Barn.* 15:8–9).²⁷

The appearance narrative bears witness to the meaning of the crucifixion for the believers, from John's perspective. In this Gospel the focus is more on the impact of the Resurrection for the disciples, than its significance for Jesus. The first creation has been brought to its completion in Jesus' death, when he gives birth to a new humanity born of God. The blood and water flowing from the side of the Crucified One symbolizes this moment of birth.²⁸ The birth symbolism was noted by Edwyn Hoskyns in dialogue with a number of ancient commentators. He wrote:

Thus the original believers stand beneath the cross to receive new birth very literally "from above" through the Spirit breathed upon them, and through the Water and the Blood poured out upon them . . . The water and the Blood [bear witness] to . . . the new birth of the Christians as nothing less than birth from God. The idea of re-creation and new birth therefore underlies St John's account of the death on the cross.²⁹

In the resurrected body of Jesus, disciples glimpse the full transcendence of human personhood, now participating fully in the life of God; in *his* Resurrection we glimpse the transcendence that is in process for all creation, but for us still awaits.

27 The eschatological "eighth day" also appear in the Jewish apocalyptic source 2 Enoch (1st century BCE): "And I appointed the eighth day also, that the eighth day should be the first-created after my work, and that the first seven revolve in the form of the seventh thousand, and that at the beginning of the eighth thousand there should be a time of not-counting, endless, with neither years nor months nor weeks nor days nor hours" (33:1).

28 On the "birth" symbolism of the blood and water see Dorothy A. Lee, *Flesh and Glory: Symbolism, Gender and Theology in the Gospel of John* (New York, NY: Crossroad, 2002), 82, 152–59. Ben Witherington writes, "one needs to be aware that in ancient Near Eastern literature the word 'water' can be and is used as a *terminus technicus*, or at least a well-known circumlocution, for matters involving procreation, child-bearing, child-bearing capacity, or the act of giving birth itself." See Ben Witherington III, "The Waters of Birth: John 3:5 and 1 John 5:6–8," *NTS* 35 (1989): 156.

29 Edwyn C. Hoskyns, "Genesis I–III and St John's Gospel," *JTS* 21 (1920): 213.

2.3.2 The Garden³⁰

The first person to encounter the Risen Jesus is Mary Magdalene and because the tomb is situated in a garden, she thinks the person she sees is the gardener. There is wonderful irony in this appellation, once we realize the overtones of the Genesis garden present in the events of the “hour.” Understanding the Johannine evocation of the original Garden of Paradise and who the original gardener was, namely God who “planted a garden in Eden, in the east” (Gen 2:8), and like a gardener cultivated it (Gen 2:9) and walked in it (3:8),³¹ Mary’s perception that Jesus is the gardener is accurate. The Risen One has passed through death into the glory that was originally his, with God in the beginning. He returns to Mary as the Divine Gardener walking in the garden of his creation (John 1:2).

The much-discussed command spoken by Jesus to Mary Magdalene, “Do not touch me” (20:17), may also reflect the Genesis motif of Jesus as the “tree of life,” discussed above, in reference to the placement of the cross “in the middle.” In Eden, when the woman explains to the serpent God’s prohibition, about eating from the tree “in the middle of the garden,” she adds to God’s command the phrase, “and you must not touch [LXX ἄψησθαι] it” (Gen 3:3), where God’s original command was simply not to eat of the tree (Gen 2:17). The LXX uses the verb ἄπτω, which is the same verb found in John 20:17 (μή μου ἄπτου). Whereas the first woman’s disobedience in touching the tree brought death, Mary Magdalene’s obedience brings the Easter proclamation of life as children of God.³²

30 In this short paper there is not the opportunity to give detailed background on the symbolic traditions of the Garden. I refer the reader to Manns, *L’Evangile de Jean*, 401–29; Ruben Zimmermann, “Symbolic Communication between John and His Reader: The Garden Symbolism in John 19–20,” in *Anatomies of Narrative Criticism: The Past, Present, and Future of the Fourth Gospel as Literature*, ed. Tom Thatcher and Stephen D. Moore, SBLRBL 55 (Leiden: Brill, 2008), 221–35. While the Gospel uses the term κήπος and not παράδεισος, which is the term used for the garden in Gen 2:8, these two words are interchangeable, and the word κήπος, to mean the original garden, is found in Ezek 36:35 and later Greek translations. On this point see the arguments of Jeannine K. Brown, “Creation’s Renewal in the Gospel of John,” *CBQ* 72 (2010): 280; Hoskyns, “Genesis I–III and St John’s Gospel,” 214; and Manns, *L’Evangile de Jean*, 405–07. Manns also notes a long patristic tradition of associating the garden of Jesus’ arrest and burial with the Garden of Eden (402–7).

31 Zimmermann, “The Garden Symbolism in John 19–20,” 228. Zimmermann adds (229) that God is explicitly described as a “gardener” (Num 24:6; 4 Macc 1:29).

32 Mariusz Rosik, “Discovering the Secrets of God’s Gardens. Resurrection as New Creation (Gen 2:4b–3:24; Jn 20:1–18),” in *Liber Annus LVIII*, ed. Massimo Pazzini (Jerusalem: Studium Biblicum Franciscanum, 2009), 93.

The primary meaning of God's garden is the dwelling place of God's presence, which leads to the association of the Garden of Eden and the Temple in much Jewish thought. This is made explicit in the *Book of Jubilees*: "And he knew that the Garden of Eden is the holy of holies, and the dwelling of the Lord, and Mount Sinai the center of the desert, and Mount Zion—the center of the navel of the earth" (*Jub.* 8:19). In Eden, God was present "walking [*hlc*: *hitpa'el*] in the garden in the cool of the evening" (*Gen* 3:8). This same verbal form is used to describe God's "walking about in a tent and a tabernacle" (*2 Sam* 7:7).³³ The Temple was elaborately decorated with carvings of trees, flowers, and animals to depict the world of nature: cedars, cypress, gourds, olivewood, palm trees, pomegranates, oxen, lions, and a great laver of water. Just as kings in the ancient East established their palaces surrounded by gardens, so God's temple was to be God's garden.³⁴

In the Gospel of John, one of the primary Christological symbols of Jesus' identity and mission is that of the Temple. In chapter 2 Jesus identifies himself as the Temple when he states, "destroy this temple, and in three days I will raise it up" (2:19), and then the narrator explains, "He spoke of the temple of his body" (2:21). This symbolism then continues across the narrative, culminating at the cross with the raising up of a new "household" of God's children.³⁵ The situating of the first appearances of the risen Jesus within a garden continues this narrative strategy, only now the Temple is depicted in terms of the garden of Paradise.

2.3.3 Eschatological Gifts: Peace and the Spirit

When Jesus comes to the disciples his first words are "Peace." The Hebrew word שָׁלוֹם (*shalom*) means far more than what is conveyed by its English translation, "peace." Shalom in the OT carries the sense of wholeness, or completion,³⁶ and

33 Gregory K. Beale, *The Temple and the Church's Mission: A Biblical Theology of the Dwelling Place of God*, NSBT 17 (Downers Grove, IL: InterVarsity, 2004), 66.

34 Lawrence E. Stager, "Jerusalem as Eden," *BAR* 26 (2000): 36–47. Rosik, "The Secrets of God's Garden," 82–83, also describes the significance of the garden for burial sites for kings in the Ancient Middle East.

35 On the Temple and Household symbolism in John see Mary L. Coloe, *God Dwells with Us: Temple Symbolism in the Fourth Gospel* (Collegeville, MN: Liturgical Press, 2001), and *Dwelling in the Household of God: Johannine Ecclesiology and Spirituality* (Collegeville, MN: Liturgical Press, 2007).

36 "In one form or another, the notions of wholeness, health, and completeness inform all the variants of the word." See Joseph P. Healey, "Peace," in *The Anchor Bible Dictionary*, ed. David Noel Freedman (New York, NY: Doubleday, 1996), 5:206; also Gerhard von Rad, שָׁלוֹם in the O.T., in *Theological Dictionary of the New Testament*, ed. Gerhard Kittel,

is derived from the word “*shalem*,” to be completed.³⁷ Thus there is continuity between the final words of Jesus on the cross, “τετέλεσται, it is finished,” and the first word of the Risen Jesus, “Peace.” In the Hebrew and Greek OT the term also has a sense of God’s final eschatological salvation.³⁸ Not only does the word look back to what has been brought to completion, but it looks ahead to a future fulfillment. From his study of the use of the term “peace” in the OT and Rabbinic usage, Werner Foerster concludes:

εἰρήνη thus acquires a most profound and comprehensive significance. It indicates the eschatological salvation of the whole man [sic] which is already present as the power of God. It denotes the state of the καινὴ κτίσις [new creation] as the state of definitive fulfillment. In this sense salvation has been revealed in the resurrection of Jesus.³⁹

When Jesus repeats his greeting, “peace,” he breathes on the disciples and says, “Receive the Holy Spirit” (20:22). The word translated “breathed” (ἐνεφύσησεν) recalls God’s action in the garden of Genesis when God formed an earth creature from the dust then “breathed (ἐνεφύσησεν) into his face” the breath of life, and the earth-creature became a living being.⁴⁰ When Jesus comes to his disciples and greets them the first time with, “Peace,” this could be understood as saying: God’s first creation has been brought to completion. When he says to them again, “Peace,” and breathes on them the Holy Spirit, this is an act of new creation, reaffirming Jesus’ words and actions at the cross. The words of Jesus and the gift of the Spirit on Golgotha constituted the disciple as a child of God, drawing the disciple into Jesus’ sonship. In the Appearance Narratives, the “hour” of Jesus continues, and when the group of disciples are gathered the Spirit is breathed and the disciples are sent into the world as children of God, “As the Father sent me, even so I send you” (20:22). There are not two bestowals of the Spirit. I would rather speak of two moments within the *one* “hour,”⁴¹ one

Geoffrey William Bromiley, and Gerhard Friedrich (Grand Rapids, MI: Eerdmans, 1964–1976), 2:402–06.

37 Robert L. Thomas, “שָׁלֵם, Shalem,” in *New American Standard Hebrew-Aramaic and Greek Dictionaries: Updated Edition* (Anaheim, CA: Foundation Publications, 1998), H7999.

38 Werner Foerster, “εἰρήνη,” in *Theological Dictionary of the New Testament*, ed. Gerhard Kittel, Geoffrey William Bromiley, and Gerhard Friedrich (Grand Rapids, MI: Eerdmans, 1964–c1976), 412.

39 Ibid., 414.

40 Zimmermann, “The Garden Symbolism in John 19–20,” 233–34.

41 The unity in the “hour” of the crucifixion (chapters 18–19) and the resurrection (chapter 20) is evident in the Johannine insistence that the day of death is a day of “Preparation.”

moment where the focus is on the believer's relationship to Jesus, and a second moment where the focus is on the believer's relationship to the world, now able to continue the mission of Jesus as the children of God.⁴² For this reason the narrative describes two moments in the giving of the Spirit to the believers, a moment of birth at the cross (19:30) and a moment of mission (20:21–23).

3 Conclusion

Morna Hooker wrote:

The correspondence of beginning and endings is a feature of a great deal of literature, both ancient and modern... Tidy endings often take us back to where we began: a skillful use of what the literary critics call *inclusio* reminds us that it was, after all, the writer's purpose all along to lead us to precisely this point... The end which brings us back to the beginning forms a satisfying conclusion.⁴³

The Fourth Gospel opens and closes with allusions to the two creation narratives of Genesis. This is not merely a literary device but also serves the theological purpose of enclosing the Jesus narrative within a “beginning” time, whenever that may have been, and the “eighth-day” of a new creation. This structural design means it is not enough to interpret the Gospel solely within the framework of salvation; this Gospel interprets Jesus within cosmic dimensions. In this essay I have restricted myself to the beginning and ending of the Gospel, but the narrative in between resounds with affirmations of Jesus as the one offering eternity life (ζωὴν αἰώνιον), an expression I interpret as meaning an entirely new quality of life, the life God enjoys in that eternity which is beyond space and time.⁴⁴

Death is not the end, but is the essential preparatory stage leading to the dawn of the eschatological “eighth day.”

42 Even in this missioning moment the creation theme is still present in the New Testament *hapax legomenon*, ἐνεφύσησεν, referring back to Gen 2:7 as discussed above. On this see also Hengel, “Old Testament,” 391.

43 Morna Hooker, *Endings: Invitations to Discipleship* (Peabody, MA: Hendrickson, 2003), 3–4.

44 The expression ζωὴ αἰώνιος *ktl.* occurs in 3:14, 16, 36; 4:14, 36; 5:24, 39; 6:27, 40, 47, 54, 68; 10:28; 12:25, 50; 17:2; and ἡ αἰώνιος ζωὴ in 17:3. I use the expression “eternity life” in an attempt to put the emphasis on the qualitative nature of the life Jesus offers, and not simply its extension in time as never-ending life. Dodd understands this expression in the Fourth Gospel to mean “the life of the Age to Come, qualitatively as well as quantitatively

I began this essay by comparing scientific and theological methods, noting that both have as their starting point the observation of data. It is important to remember that the Gospels, and the theology which they express, have their origins in the lived experience of human beings. As Sandra Schneiders reminds us:

... it was a particular *lived experience* of union with God in the risen Jesus through his gift of the Spirit/Paraclete within the believing community (spirituality) that gave rise gradually to a particular *articulated understanding* of Christian faith (theology). This theology was encoded in the Gospel text, and through it we gain access to the experience, the spirituality, that gives this Gospel its unique character.⁴⁵

The experience of Jesus provided the earliest believers with the raw data that they used as the basis of their reflection. As the first believers were primarily Jewish, they interpreted their experience in the light of their Jewish traditions and Scripture, and within their first-century cosmological framework. Those reflections that stood the test of time and further experience were eventually “canonized” to form the New Testament. When we can acknowledge the experiential basis of religion then perhaps science and religion can find a common language and a common cause for respectful dialogue. As 21st century science moves further into the invisible worlds of holons, quarks, and dark-matter, perhaps science and religion can both acknowledge the need for metaphor, imagination, and faith in exploring the mystery of our being.

different from this life.” See C. H. Dodd, *The Interpretation of the Fourth Gospel* (Cambridge: Cambridge University Press, 1953), 144–49.

- 45 Sandra Schneiders, *Written that You May Believe: Encountering Jesus in the Fourth Gospel* (New York, NY: Crossroad, 1999), 48.

Summary and Reflections: The Dialogue about Stories of Origin

R. Alan Culpepper

The essays in this volume are rich in both their depth and their diversity. They provide a thoughtful introduction to the significance that various religions and cultures assign creation stories, or stories of origin. They also provide an orientation to the current state of the debate between theistic and naturalistic understandings of evolution and the origin of human life. The dialogue between science and theology has become increasingly nuanced, as the essays in this volume attest.

1 Creation and Science

The six essays in Part 1, “Creation and Science,” explore current understandings of the origin of the universe and the evolution of human life in science and theology. David Christian, the originator of the Big History project, addresses the “naturalistic fallacy,” that is, the tendency to move from statements of what *is* to statements of what *ought* to be. David Hume first noted how writers slip from “mapping” to “meaning,” that is, from descriptive statements to statements about significance, purpose, and ethics, from “is” to “ought.” For example, scientists have a strong sense that they “ought” to map reality accurately. What is the bridge to meaning, purpose, and ethics? Christian contends that the predisposition to find meaning can be traced to the importance mapping had for the survival of our ancestors. All living organisms require manageable flows of energy. The mapping needed to locate and acquire such energy lends purpose and meaning to the organism’s activity.

Ted Peters starts with the same concern David Christian addresses, namely the question of meaning and purpose: “The theologian needs to excavate the scientific landscape and uncover questions of origin and meaning hidden just below the surface.” Peters, however, responds that naturalistic accounts that dismiss questions of meaning and purpose fail because they assume the viewpoint of a third person spectator and thereby rule out meaning and purpose. Naturalists, he claims, do not account for the role of consciousness, mind, and subjectivity which reside in the first-person perspective. Further, he argues that contingency belongs to the physical character of the universe at the

quantum level, which is important because “physical contingency is a precursor to human subjectivity, consciousness, free will and, hence, the interpretation of meaning in history.”

John Haught also addresses the significance of “the recent arrival and flourishing of the new story of the universe,” arguing that, “instead of diminishing reasons for Christian faith and hope in a personal, infinitely generous, and promising God,” it offers fresh perspectives for theological reflection. Taking up this challenge, Haught rejects both the naturalist’s exclusion of meaning and intelligent design’s orchestration of the process and end of creation, preferring instead to understand creation as a yet unfinished drama.

Graham Walker takes up the humanist E. O. Wilson’s call for conservative Christians to join him in working to save the earth from humanity’s destruction of its plant and animal life. Specifically, Wilson calls for a rejection of the Platonism and Christian apocalypticism in the Christian tradition that devalue the world around us. Responding to Wilson’s appeal, Walker suggests that Karl Barth’s incarnational theology of creation, rather than Wilson’s “excarnational” version of Christianity, can be a foundation from which the Christian community can join Wilson in his “Appeal to Save Life on Earth.”

Kurt Richardson offers another approach to the dialogue between science and theology by observing that the notion of *creatio ex nihilo* is not present in Genesis but is “a brilliant monotheistic gloss on the text.” Genesis asserts that there is no other creator, but significantly it recognizes that earth and water are co-creators that bring forth life under God’s dominion. This relationship between agency and instrumentality, creator and co-creator, suggests further the role of human beings as agents who share the *imago dei* in the continuing work of creation.

Randall Zachman asks whether Christians can “bring the evolutionary history of life in the cosmos into their narration of life with God taken from Scripture,” and if so “how would they interpret Scripture in general, and the Gospel of John in particular, if they saw human and cosmic life from an evolutionary point of view?” (96) To address this question, Zachman turns to the evolution of human consciousness. He suggests that “the consciousness of the presence of God is an essential part of every human consciousness, which has developed into a universal human capacity by means of that same evolutionary history” (103). If this is the case, however, then the consciousness of “Absolute Unitary Being” cannot be rooted in Jesus but is potentially possible for all human beings.

2 Creation Stories in Religion

Part 2 turns from the dialogue between science and religion over the origin of the universe and the beginning of life to the place of creation stories in religion. The three essays in Section A extend the discussion to the role of creation and the created order in the Hebrew scriptures, Buddhism, and African folklore.

Accepting as her starting point the now common view that Gen 1:1 does not assume the later understanding of creation *ex nihilo*, Ellen van Wolde examines “texts in the Hebrew Bible that can help us discern the parameters of ancient perspectives on cosmic origin” (107). She finds that Gen 1 and Ps 104 envision that God separated the primordial waters to create the vault of the heavens and the circular disk of earth in their midst. The understanding of divinity and creation in the Hebrew Bible is very different from modern understandings. God neither creates the waters nor transforms them. The focus is on God’s purpose in creating, not on the materials involved.

Paul van der Velde takes us into the world of Buddhist thought, which is little known to most non-Buddhists, and Buddhism’s engagement with creation stories is altogether different from western Jewish and Christian understandings. The Buddha apparently never gave his followers a creation story. The creation story in the Aggaññasutta may be a humorous critique of the Brahmins: the world begins in ignorance. The Buddha taught instead that his followers should not be concerned about the origin of the universe. Knowledge is not valued simply for its own sake. The Buddha considered the question of the origin of the universe as one of the unanswerable matters. Nevertheless, although the Buddha was not concerned with the origin of the universe, most Asian Buddhists have a myth of origin, even though this myth may not be distinctively Buddhist. Consequently, Buddhists have developed a variety of cosmologies. What is important, however, is the pursuit of liberation from the world and its suffering.

Attie van Niekerk introduces us to the role of the land in African mythology. The African worldview, south of the equator, is strikingly different from that of the north. While African mythology relates accounts of the origin of man, it gives little attention to the origin of the world. There is no gap between the spiritual world and natural life, and the concept of time is different: the future scarcely exists since events in the future have not happened yet. The concept of the “lost land,” that is, the land that was lost to the African people through white occupation, played a central role in the war for political liberation in Zimbabwe. Traditionally, the land is related to the spirits of previous chiefs and the Creator. After political liberation it was used to motivate a mass movement to plant trees and preserve the ecology. It was also used by President Mugabe to

motivate the occupation of the land of commercial farmers. In a different way, in South Africa during the time of Black Consciousness and other Africanist movements, the symbol of mother and earth formed part of the rediscovery of African identity around the 1970's and played a central role in motivating the struggle against apartheid.

3 Creation Stories and the Gospel of John

The final group of essays, in Part 2, Section B, is concerned with the contribution of the Gospel of John, and specifically its prologue, to this larger discussion of the cosmos and stories of origin. Introducing this section, Paul N. Anderson examines the prologue as "a cross-cultural celebration of God's creative-redemptive work." To this end, he examines in sequence the relationship of the prologue to the body of the Gospel, its relationship to the prologue of 1 John, and its relationship to other references to God's creative activity in the remainder of the New Testament. Anderson views the prologue as an introduction to the main themes of the Gospel, but one that grew out of the community's worship. This interpretation gains support from a comparison of its structure and themes with those of the prologue to 1 John, which is remarkably similar. Anderson agrees with those who see the prologue to John as a later, fuller version of 1 John 1:1–3. The heart of Anderson's essay is his analysis of the prologue's cross-cultural dialogue with Greco-Roman sources, the Jewish agency schema in Deut 18:15–22, Hebrew Wisdom tradition, and other Christian hymnic and confessional passages in the New Testament. In this matrix the prologue offers its distinctive confession of the creative, revelatory, and redemptive work of the divine Word.

Extending and nuancing her work in an earlier essay, Adele Reinhartz shows how the Gospel of John both depends on and departs from Aristotle's theory of epigenesis. The species is perpetuated by a process of generation and decay. In accord with Aristotle's understanding, Jesus received the divine logos from his Father, while his mother supplied the female element needed for the growth of the offspring. John, however, views the birth of the children of God as a new species, which is born not in accord with Aristotle's theory of epigenesis but through "birth from above" which comes through the infusion of holy spirit, which may occur through baptism, hearing Jesus' word, or eating his body. There is no physical genesis, hence no female role for women, and no decay. John's adaptation of Aristotelian thought suggests that not only can there be a complementary relationship between Johannine thought and modern science

but there was a dialogue between the distinctively Johannine concept of the “children of God” and ancient embryology as understood by Aristotle.

Jan van der Watt extends the discussion by investigating John’s cosmological vision in the Letters of John. The word *kosmos*, which occurs twenty-three times in the Letters, is used variously in reference to: “a) the physical/material reality people live in; b) all humans; c) humans not believing in God; d) the ungodly reality that stands in opposition to God” (173). The focus in the Letters is therefore not on a creational cosmology, but on a theological cosmology. In particular, the children of God, though part of the *kosmos*, stand in opposition to it. Neither is God part of the *kosmos*. Here Van der Watt’s analysis is consistent with Reinhartz’s interpretation of the genesis of the “children of God”:

Humans are now enabled to partake in the transcendental reality by receiving eternal life through their union with Jesus, thus entering into an intimate relationship with the transcendental God—they are born into the family of God. They are indeed “begotten of God . . . for God’s nature abides in him” (3:9). (179)

Like Reinhartz, Van der Watt contends that “in Jesus a new ‘species’ came into being, namely, a ‘species’ that is human on this earth, but that also shares in the divine reality of God” (179). In John’s theological cosmology, the opposition between the devil and God, and hence the children of God, is depicted in military terms as a great cosmic battle that will end with the devil’s defeat. John’s thought is therefore at home in early Christian apocalypticism.

Mary Coloe argues that the widely recognized echo of Gen 1:1 in John 1:1 is a clue to a much more extensive recasting of the creation narrative in John. Coloe mines the parallels between John and Genesis, showing that John is a creation story of sorts. The prologue of John, she contends, has the same structure as the account of creation in Genesis 1. John, however, does not have a Sabbath; the Father is working still (5:17). Actually, John records two creation stories. The first comes to an end at the cross, when “It is finished” (19:30), a pronouncement that echoes the report in Gen 2:1–2 that God finished the work of creation on the sixth day. The second Johannine creation narrative begins with the water and blood that flowed from Jesus’ side—an image associated with birth. Jesus’ death opens the way for the birth of the children of God. Again, as in Genesis, the new beginning takes place in a garden, where Mary ironically mistakes Jesus for the gardener. Then, the risen Jesus greets his disciples with the greeting “shalom,” which signifies God’s eschatological salvation, and breathes the Spirit into them, just as God breathed life into Adam (Gen 2:7).

Once again, Coloe observes, we see the parallel concerns with origin and destiny in science and in religion.

4 Concluding Reflections

The energy and breadth of these essays is a remarkable reflection of our human desire to understand our place in the created order, the origin of life and especially human life, and the end or *telos* of life. No doubt this preoccupation arises from our awareness of our finitude, first in reference to nature and the world we inhabit, and then, with increasing force, as we become more aware of the vastness of time and space. When we “look at your heavens, the work of your fingers, the moon and the stars that you have established,” with the Psalmist, we are moved to ask, “what are human beings that you are mindful of them, mortals that you care for them?” (Ps 8:3).

One way to address the question of the meaning of life is to probe its origin and understand it in relation to the creation. The mere fact of the near universality of creation stories among human cultures is itself a significant indication of our need as humans to establish our relationship to the world and to whatever powers—divine or natural—that brought it into being. This being said, science and religion depart from one another at this point. Scientists ask what and how, while religion asks who and why? The discourses of both science and theology require the acceptance of certain presuppositions and verify their conclusions by the confirmation of these presuppositions, their explanatory power, and the insights they lead to in personal and shared experience—and both have their limitations.

Principally, neither can venture into the territory of the other. It is not the place of religion to offer scientific explanations, nor does it lie within the purview of science to make pronouncements on religion. The human predilection for telling stories of how we got here and ascribing the created order to a Creator is demonstrable and potentially significant for both scientists and theologians, although each will interpret this data differently. Does our sense of finitude lead us to create myths and creation stories, generally with a supernatural Creator, or has the evolution’s remarkable trend toward greater complexity and higher orders of life led to the human ability to grasp and respond to the Creator?

Theologians and biblical scholars who spend their time interpreting texts and debating their meaning and application to life are well aware that every story conveys assumptions, values, and implications, however latent they may

be in the narrative. Every story of origin is someone's or some culture's story. It arises from their shared interpretations of their experience and conveys their perspectives on life, its meaning, and their shared values. What is not said can also be as significant as what is said, either as a reflection of lack of awareness or as a collective act of suppression. For generations, for example, the role of women and persons of other races or cultures has been overlooked in our cultural stories. Our generation has had the painful task of confronting painful, shameful legacies, whether they be our complicity in racism, exploitation of other peoples, or devastation of our eco-system. One of the positive by-products of the dialogue between science and religion in this era of growing awareness is that we are drawn to value stories of origin that help us transcend the boundaries that have divided peoples and cultures, whether they be stories of "Big History" rather than "tribal histories," or stories of God's love for all peoples rather than scriptures that legitimize differences and distinctions between peoples.

This collection of essays, although in many respects it still represents a narrow sampling of the larger fields of study, signals a new stage in our shared discourse. We can hope that it will lead to further constructive exchanges between scientists and theologians, and more specifically between biblical scholarship, folklore, mythology, and science. The stories we live by are all important, and the openness to learn from one another across these disciplines will bring new insights into focus for each discipline while contributing to the development of a broader conversation about realities that are embedded deeply in our common human experience.

Finally, we may observe that the Gospel of John is ideally situated to be the focus of aspects of this broader conversation. As these essays illustrate, it draws from a wide range of cultural learning (from Aristotle to the Hebrew wisdom tradition), uses terms that relate to common human experience (light, bread, water, birth), deals with both creation and revelation metaphorically through the Greek and Hebrew concepts of "Word" (*logos*), speaks of the "true light, which enlightens everyone" (1:9), celebrates life, and looks not only at where we have come from but what we are becoming.

By rejecting the forced choice of either science or religion that has become engrained on both sides of the debate in recent centuries and decades, and affirming the fruitfulness of exploring stories of origin for what they have in common and for what they each have to teach us in our increasingly interconnected world, we may yet arrive at truths and values that will strengthen our bonds with one another and with the world in which we live. Our future story may well grow out of our stories of origin.

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